

# The Gazette of India

PUBLISHED BY AUTHORITY

No. 26] NEW DELHI, SATURDAY, JUNE 30, 1956

## NOTICE

The undermentioned Gazette of India Extraordinary was published upto the 23rd June 1956—

Issue No.	No. and date	Issued by	Subject
186A	S.R.O. 1412-A, dated the 14th June 1956.	Ministry of Commerce and Industry.	Amendments made in the By-laws of the East India Cotton Association, Limited Bombay.

Copies of the Gazette Extraordinary mentioned above will be supplied on indent to the Manager of Publications, Civil Lines, Delhi. Indents should be submitted so as to reach the Manager within ten days of the date of issue of this Gazette.

## PART II—Section 3

### Statutory Rules and Orders issued by the Ministries of the Government of India (other than the Ministry of Defence) and Central Authorities (other than the Chief Commissioners).

#### ELECTION COMMISSION, INDIA

New Delhi, the 18th June 1956

**S.R.O. 1458.**—It is hereby notified for general information that the disqualifications under clause (c) of section 7 and section 143 of the Representation of the People Act, 1951 (XLIII of 1951), incurred by the person whose name and address are given below, as notified under notification No. RN-P/52(25), dated the 30th August, 1952, have been removed by the Election Commission in exercise of the powers conferred on it by the said clause and section 144 of the said Act respectively:—

Shri Jawan Mal, S/o Shri Balkishan, Jalap Mohalla, Jodhpur (Rajasthan).

[No. RN-P/8/56(9)Bye.]

New Delhi, the 19th June 1956

**S.R.O. 1459.**—In pursuance of sub-rule (5) of rule 114 of the Representation of the People (Conduct of Elections and Election Petitions) Rules, 1951, the name of the person shown in column 1 of the Schedule below who having been nominated as a candidate for election to the House of the People from the constituency specified in column 3 thereof at the bye-election held in April, 1956, and the name

of the person specified in column 2 of the said Schedule who having acted as the election agent of the candidate specified in column 1, have, in accordance with the decision given by the Election Commission under sub-rule (4) of the said rule, failed to lodge the return of election expenses in the manner required and have thereby incurred the disqualifications under clause (c) of section 7 and section 143 of the Representation of the People Act, 1951 (XLIII of 1951), are hereby published:—

#### SCHEDULE

Name of the candidate	Name of the election agent	Name of constituency
I	2	3
Shri Subbarathinam, No. 22, Deivasigamani Mudaliar Road, Mirsapet, Madras.	Shri P. M. Sundararajan, 33, Kumbelamman Koll St., Madras.	Tiruvallur.

[No. MD-P/2/56(8)BYE.]

**S.R.O. 1460.**—In pursuance of sub-rule (5) of rule 114 of the Representation of the People (Conduct of Elections and Election Petitions) Rules, 1951, the name of the person shown in column 1 of the Schedule below who having been nominated as a candidate for election to the House of the People from the constituency specified in column 3 thereof at the bye-election held in April, 1956, and the name of the person specified in column 2 of the said Schedule who having acted as the election agent of the candidate specified in column 1, have, in accordance with the decision given by the Election Commission under sub-rule (4) of the said rule, failed to lodge the return of election expenses within the time and in the manner required and have thereby incurred the disqualifications under clause (c) of section 7 and section 143 of the Representation of the People Act, 1951 (XLIII of 1951), are hereby published:—

#### SCHEDULE

Name of the candidate	Name of the election agent	Name of constituency
I	2	3
Shri R. Loganathan, 44, Chinnathambi Street, Madras—I.	Shri T. G. Sundararajan C/o Shri R. Loganathan, 44, Chinnathambi Street, Madras—I.	Tiruvallur.

[No. MD-P/2/56(9)BYE.]

*New Delhi, the 20th June 1956*

**S.R.O. 1461.**—In exercise of the powers conferred by the proviso to sub-rule (2) of rule 5 of the Representation of the People (Conduct of Elections and Election Petitions) Rules, 1951, the Election Commission hereby directs that the following amendment shall be made in its notification No. 56/2/53-2, dated the 6th February, 1953, as amended from time to time namely:—

#### Amendment

In columns 1 and 2 of the Table appended to the said notification, the following entries shall be deleted:—

“Madras

“Cock”

[No. 56/2/56.]

By order,

A. KRISHNASWAMY AIYANGAR, Secy.

## MINISTRY OF LAW

New Delhi, the 23rd June 1956

**S.R.O. 1462 [Contracts/Am(8)].**—In exercise of the powers conferred by clause (1) of article 299 of the Constitution, the President hereby makes the following further amendments in the notification of the Government of India in the Ministry of Law, No. S.R.O. 3442, dated the 2nd November, 1955, relating to the execution of contracts and assurances of property, namely:—

In the said notification—

1. In Part IV which relates to the Ministry of Defence—

(a) under head A—

(1) the existing entry in item 2 shall be numbered as sub-item (ii) of that item and before that sub-item, the following shall be inserted, namely:—

“(i) contracts for local purchase of stores required for EME Workshops and for repairs to vehicles or other equipment; by the Master General of the Ordnance, the Director of Mechanical Engineering, Commandant/Officer Commanding Army/Command/Engineer Equipment Workshops EME, Combined Workshops EME, Infantry Troops Workshops EME, Armoured Workshops Company EME, Infantry Workshops Company EME, Mobile Workshops Company EME, Para Infantry Workshop Company EME, Plant Company Workshop EME, Station Workshops EME (Type C & above), Artillery Static Workshop EME, EME Centre, EME School, Officer Commanding, Detachments of the above units, Light Aid Detachments (all types), Divisional Recovery Company EME, Airborne Divisional Recovery Company EME, Light Armoured Artillery Workshop EME, Heavy Armoured Artillery Workshop EME, Transport Company Workshop Sections EME (all types), Armoured Brigade Recovery Company EME, Independent Recovery Section EME.”

(2) in item 3, sub-item (i), (ii) and (iii) shall be renumbered as sub-items (ii), (iii) and (iv) respectively and the following shall be inserted as sub-item (i), namely:—

“(i) Contracts for local purchase of Ordnance Stores; by the Master General of the Ordnance, Director of Ordnance Services, Deputy Director of Ordnance Services, Assistant Director of Ordnance Services, Headquarter Corps, Commanders, Army Ordnance Corps, Headquarters Divisions, Assistant Directors of Ordnance Services, Headquarters Delhi and East Punjab Areas only, Staff Captain (Ordnance) No. 2 (Independent) Armoured Brigade, Commandants/Chief Ordnance Officers/Ordnance Officers, Incharge Ordnance Depots.”

(b) under head B, after item 7, the following item shall be inserted, namely:—

“8. Contracts for local purchase of stores; by the Officer Commanding, Armed Forces Medical Stores Depot, Bombay and Officer Commanding, Armed Forces Medical Stores Depot, Lucknow.”

(c) under head C—

(i) in item 2, for the words “Brigades, Army Service Corps”, the words “Brigadiers, Army Service Corps” shall be substituted;

(ii) after item 5, the following item shall be inserted, namely:—

“6. Contracts for local purchase of Canteen Stores including liquor/beer required for the Canteen Services; by the Chairman, Board of Administration, Canteen Stores Department (India).”;

(d) under head D, in item 1, the words “Chief Engineer, National Defence Academy Project, Poona” shall be omitted;

(e) under head E—

(i) in item 6, after clause (iv), the following clause shall be inserted, namely:—

“(v) Contracts for local purchase of stores; by the Works Manager and the Assistant Works Manager of Ordnance and Clothing Factories”;

(ii) in item 7, in clause (vii) after the words "employed in the", the words "Ministry of Defence Secretariat," shall be inserted;

(iii) after item 10, the following item shall be inserted, namely:—

"11. Contracts and other instruments relating to advances from the Defence Services Officers Provident Fund for the purchase or building of houses; by the Director or the Deputy Director, Personal Services, in the case of Army Officers, the Director of Supply Branch, in the case of IN Officers and the Director of Accounts, Air Headquarters, in the case of Air Force Officers."

(f) under head G, in item (i), for the words "Military Estate Officers" the words "Military Estates Officers" shall be substituted;

(g) under head J—

(i) in item 3—

(1) after the words "Naval Stores", the words "Air Stores and Equipment", shall be inserted;

(2) before the words "scraping and cleaning of boilers of Indian Ships" the words "repair, maintenance and overhaul of weighing machines", shall be inserted;

(3) after the words "underwater fittings of Indian ships" the words "docking and repair to I.N. Ships," shall be inserted;

(4) after the words "motor vehicles" the words "and petrol pumps" shall be inserted;

(5) after the words "cobbler contracts," the words "grass cutting contracts," shall be inserted;

(ii) after item 5, the following item shall be inserted, namely:—

"6. Contracts for local purchase of stores; by Flag Officer (Flotilla) Indian Fleet, the Resident Naval Officers, Madras and Calcutta, the Naval Store Officers, Bombay and Cochin, the Naval Armament Supply Officer, Bombay, the Officer-in-Charge, S.P.D.C. (IN) Bombay and the Victualling Officer, Cochin.;"

(h) under head K, in item 1, for clause (b), the following shall be substituted, namely:—

(b) Contracts and other instruments relating to tailoring, laundry, dry-cleaning, repair and maintenance of Air Force equipment, conservancy services, messing and canteen; by the Officer Commanding a Depot, Station, Wing, I.A.F. Station, Khammaria or President, I.A.F. Selection Board, the Air or other Officer Commanding a Command, the Air Officer-in-Charge Technical and Equipment Services or Air Officer Incharge Personnel and Organisation, Air Headquarters.

(c) Contracts and other instruments relating to supply of authorised equipment e.g. condiments, distilled water, brooms sweeping and other equipment authorised to be purchased locally at Indian Air Force Stations; by the Officer Commanding a Depot, Station, Wing, I.A.F. Hospital, Unit (Self Accounting for both Cash and Equipment), the Air or other Officer Commanding a Command, the Air Officer-in-Charge Technical and Equipment Services, the Air Officer-in-Charge Personnel and Organisation, Director of Organisation, Director of Equipment, Director of Medical Services (Air), Director of Accounts, Deputy Director, Education, Deputy Director, Meteorological Services or Camp Commandant, Air Headquarters".

2. In Part IX, which relates to the Ministry of Finance (Revenue Division), after head F and the entry thereunder, the following head and entry shall be inserted, namely:—

"G. All contracts and instruments relating to Estate Duty; by the Controllers of Estate Duty".

3. After Part XII, relating to the Ministry of Home Affairs, the following Part shall be inserted, namely:—

"XIIA.—In the case of the Secretariat of the House of the People:—

(a) All contracts and instruments relating to purchase, supply and conveyance or carriage of stationery, furniture, stores and machinery;

(b) security bonds for the due performance of their duties by the Officers of the Secretariat; and  
 (c) all miscellaneous contracts and instruments,  
 by the Deputy Secretary-in-charge of Administration, in the Secretariat of the House of the People".

4. After Part XIII, the following Part shall be inserted, namely:—

"XIII.—In the case of the Ministry of Iron and Steel:—

A.—In the case of the Bhilai Steel Project (subject to any limit fixed by departmental orders):—

All contracts and instruments relating to matters connected with the Government of India's project for the establishment of a steel plant at Bhilai in Madhya Pradesh; by the General Manager, Bhilai Steel Project.

B.—In the case of the Durgapur Steel Project (subject to any limit fixed by departmental orders):

All contracts and instruments relating to matters connected with the Government of India's project for the establishment of steel plant at Durgapur in West Bengal; by the Project Administrator, Durgapur Steel Project."

5. In Part XXI which relates to the Ministry of Transport, under head C, in clause (iii) of item 2, for the expression "Rs. 25,000/-" the expression "Rs. 40,000/-" shall be substituted.

6. In Part XXII, which relates to the Ministry of Works, Housing and Supply, under head F, in items 2, 3, 4 and 6, for the words "Director of Administration and Co-ordination" the words "Director of Administration" shall be substituted.

7. In Part XXXV which relates to the Tribal Areas of Assam:—

(i) in item 1 for the words "by the Political Officers", the words "by the Adviser to the Governor of Assam for Tribal Areas or the Political Officers" shall be substituted;

(ii) in item 2, for the words "by the Inspector-General of Assam Rifles" the words "by the Adviser to the Governor of Assam for Tribal Areas or the Inspector-General of Assam Rifles" shall be substituted;

(iii) after item 2, the following item shall be inserted, namely:—

"3. All contracts and instruments relating to matters connected with the sale, supply, carriage or conveyance of stores and building material, or for the provision of labour, and service contracts with the staff; by the Director of Supply and Transport, North East Frontier Agency;"

(iv) existing item 3 shall be renumbered as item 4.

[No. F.25(4)/55-G]

V. S. JETLEY, Dy. Secy.

### MINISTRY OF HOME AFFAIRS

New Delhi-2, the 20th June 1956

**S.R.O. 1463.**—In exercise of the powers conferred by section 27 of the Indian Arms Act, 1878 (XI of 1878) the Central Government is pleased to grant exemption for three months from 22nd May 1956, to the body-guard accompanying Shri Pasupati Nath Ghosh, Minister, Government of Nepal, during his journey to Lumbini through the States of Bihar and Uttar Pradesh, from the operation of the prohibitions and directions contained in sections 6, 10, 13, 14, and 15 of the said Act, in respect of one .38 bore revolver and connected ammunition.

[No. 17/9/56-Police (IV).]

New Delhi-2, the 23rd June 1956

**S.R.O. 1464.**—In exercise of the powers conferred by Entry 3(b) of the Table annexed to Schedule I to the Indian Arms Rules, 1951, the Central Government is pleased to specify Rajkumar Shri Pratapkumar, second son of the Ruler of Jasdan, for purposes of that entry and directs that the exemption shall be valid in respect of one gun or rifle and one pistol or revolver.

[No. 16/14/56-Police IV]

*New Delhi, the 28th June 1956*

**S.R.O. 1465.**—In exercise of the powers conferred by Entry 3 (b) of the Table annexed to Schedule I to the Indian Arms Rules, 1951, the Central Government is pleased to specify Kumar Shree Natwarsinhji, younger brother of the Ruler of Mohanpur for the purposes of that entry.

[No. F.8/4/55-Police IV.]

C. P. S. MENON, Under Secy.

### ORDER

*New Delhi-2, the 21st June 1956*

**S.R.O. 1466.**—In exercise of the powers conferred by section 3 of the Foreigners Act, 1946, (XXXI of 1946), the Central Government hereby makes the following further amendments in the Foreigners Order, 1948, namely:—

In the said Order—

- (1) for sub-paragraph (1) of paragraph 3, the following sub-paragraph shall be substituted, namely:—
  - (a) otherwise than at such port or other place of entry on the borders of India as a Registration Officer having jurisdiction at that port or place may appoint in this behalf, either for foreigners generally or for any specified class or description of foreigners; or
  - (b) without the leave of the civil authority having jurisdiction at such port or place.”; and
- (2) for sub-paragraph (1) of paragraph 5, the following sub-paragraph shall be substituted, namely:—
  - (a) otherwise than at such port or other recognised place of departure on the borders of India as a Registration Officer having jurisdiction at that port or place may appoint in this behalf, either for foreigners generally or for any specified class or description of foreigners; or
  - (b) without the leave of the civil authority having jurisdiction at such port or place.”

[No. 4/2/56-F.I.]

FATEH SINGH, Dy. Secy

### MINISTRY OF EXTERNAL AFFAIRS

*New Delhi, the 22nd June, 1956*

**S.R.O. 1467 APP/CGE/56/2.**—Shri T. N. Kaul I.C.S. Joint Secretary to the Government of India in the Ministry of External Affairs, New Delhi, has taken over the functions of the Controller General of Emigration with the Government of India, with effect from the 18th June, 1956, vice Shri M. R. A. Baig who has proceeded on leave.

[No. 4-40/56-Emi.]

P. SOMASEKHARAN, Under Secy.

### MINISTRY OF FINANCE

(Department of Economic Affairs)

*New Delhi, the 19th June 1956*

**S.R.O. 1468.**—In exercise of the powers conferred by section 53 of the Banking Companies Act, 1949 (X of 1949), the Central Government, on the recommendation of the Reserve Bank of India, hereby declares that the provisions of sub-section (2) of section 19 of the said Act shall not, up to the period ending with

the 30th June 1957, apply to the Gauhati Bank Ltd., Gauhati, in respect of the shares of the Nirmala Tea Co. Ltd. held by the bank on the 2nd July 1955.

[No. F.4(65)-FI/56.]

PREM NARAIN, Dy. Secy.

**MINISTRY OF FINANCE (REVENUE DIVISION)**

**CUSTOMS**

*New Delhi, the 30th June 1956*

**S.R.O. 1469.**—In exercise of the powers conferred by section 23 of the Sea Customs Act, 1878 (VIII of 1878), as in force in India and as applied to the State of Pondicherry, the Central Government hereby rescinds the notification of the Government of India in the Ministry of Finance (Revenue Division) No. 33-Customs, dated the 20th March, 1954.

[No. 43.]

**S.R.O. 1470.**—In exercise of the powers conferred by section 19 of the Sea Customs Act, 1878 (VIII of 1878), as in force in India and as applied to the State of Pondicherry, the Central Government hereby makes the following amendments in the notification of the Government of India in the late Finance Department (Revenue Division), No. 16-Customs, dated the 15th October 1946, namely:—

In the said notification—

- (a) for the word "minerals" the word "mineral" shall be substituted.
- (b) the brackets and figure "(1)" occurring before the word "Quartz" shall be omitted; and
- (c) item (2) shall be omitted.

[No. 51.]

M. A. RANGASWAMY, Dy. Secy.

**CENTRAL BOARD OF REVENUE**

**ESTATE DUTY**

*New Delhi, the 23rd June 1956*

**S.R.O. 1471.**—In exercise of the powers conferred by the second proviso to sub-section 4 of the Estate Duty Act, 1953 (34 of 1953), and in supersession of the Board's Notification No. 28-ED, dated the 24th April, 1956, the Central Board of Revenue hereby directs that, subject to the pecuniary limits specified in the notification of the Central Board of Revenue No. 5-E.D., dated the 4th December 1953, every Income-tax Officer appointed to be an Assistant Controller and posted to the Estate Duty *cum* Income-tax Circle, Banaras, shall perform his functions as Assistant Controller in the said Circle to the exclusion of all other Assistant Controllers in respect of the estates of all deceased persons who immediately before their death were being, or would have been, assessed to income-tax, had they derived any taxable income, in any Income-tax Circle within the Range of the Inspecting Assistant Commissioner of Income-tax, Banaras.

2. This notification shall have effect from the 1st May, 1956.

[No. 33/F. No. 21/7/55-ED.]

**S.R.O. 1472.**—In exercise of the powers conferred by the second proviso to sub-section 4 of the Estate Duty Act, 1953 (34 of 1953), and in supersession of the Board's Notification No. 29-ED, dated the 24th April, 1956, the Central Board of Revenue hereby directs that, subject to the pecuniary limits specified in the notification of the Central Board of Revenue No. 5-E.D., dated the 4th December 1953, every Income-tax Officer appointed to be an Assistant Controller and posted to the Estate Duty *cum* Income-tax Circle, Lucknow, shall perform his functions as Assistant Controller in the said Circle to the exclusion of all other Assistant Controllers in respect of the estates of all deceased persons who

immediately before their death were being, or would have been, assessed to income-tax, had they derived any taxable income, in any Income-tax Circle within the Range of the Inspecting Assistant Commissioner of Income-tax, Lucknow.

2. This notification shall have effect from the 1st May, 1956.

[No. 34/F. No. 21/7/55-ED.]

**S.R.O. 1473.**—In exercise of the powers conferred by the second proviso to sub-section 4 of the Estate Duty Act, 1953 (34 of 1953), and in supersession of the Board's Notification No. 30-ED, dated the 24th April, 1956, the Central Board of Revenue hereby directs that, subject to the pecuniary limits specified in the notification of the Central Board of Revenue No. 5-E.D., dated the 4th December 1953, every Income-tax Officer appointed to be an Assistant Controller and posted to the Estate Duty cum Income-tax Circle, Meerut, shall perform his functions as Assistant Controller in the said Circle to the exclusion of all other Assistant Controllers in respect of the estates of all deceased persons who immediately before their death were being, or would have been, assessed to income-tax, had they derived any taxable income, in any Income-tax Circle within the Range of the Inspecting Assistant Commissioner of Income-tax, Meerut.

2. This notification shall have effect from the 1st May, 1956.

[No. 35/F. No. 21/7/55-ED.]

R. K. DAS, Secy.

#### CUSTOMS

New Delhi, the 30th June 1956

**S.R.O. 1474.**—In exercise of the powers conferred by clause (c) of section 9 of the Sea Customs Act, 1878 (VIII of 1878) as in force in India and as applied to the State of Pondicherry, the Central Board of Revenue hereby makes the following rules to provide for the service of notice in proceedings relating to adjudication of confiscation of goods and imposition of fine, penalty or increased rate of duty under the said Act:—

#### RULES

1. Every Customs Officer, in any case where the owner is known, before adjudging confiscation of goods or imposing fine, penalty or increased rate of duty under the Sea Customs Act, 1878 (VIII of 1878), shall give or cause to be given notice of his intention to so adjudicate to such owner, setting out clearly the grounds for the proposed action. Every such notice shall be delivered by hand to the owner or sent by registered post to the last address furnished to the Customs authorities by him or, where no such address has been furnished, to the address otherwise known to the Customs authorities. If the owner has any agent, such notice may be delivered to such agent or sent to him by registered post:

Provided that no notice shall be necessary where the owner declares in writing that he is aware of the contravention alleged against him and desires after furnishing such explanation as he thinks necessary, that orders thereon may be passed as early as possible.

2. Where the Customs officer is satisfied that the owner or his agent, as the case may be, is keeping out of the way for the purpose of avoiding service of notice, or, that for any other reason a notice cannot be served by registered post he shall cause an intimation in the form annexed to be affixed on the notice board of his office, and shall also publish such intimation in a newspaper having circulation in the locality where the owner is known to have last resided or carried on business or personally worked for gain.

3. If delivery of the notice is not taken within the time-limit specified in the intimation referred to in rule 2 or the delivery having been taken, no reply is received to the notice within the time allowed therein, the Customs officer may proceed *ex parte*.

4. No such intimation or notice shall be deemed void on account of any error in the name or designation of any person referred to therein unless such error has produced a material misconception of the intended intimation.

## FORM

Office of the .....  
..... Custom House

## INTIMATION

To

WHEREAS a notice to show cause why action to adjudge confiscation or impose fine, penalty or increased rate of duty should not be taken against you and/or the goods described below under the provisions of section..... of the Sea Customs Act, 1878 (VIII of 1878), has been pending in the office of the undersigned for want of service on you, you are hereby informed that you should arrange for taking delivery of the said notice on any working day on or before the..... failing which the case will be adjudicated *ex parte*.

## Particulars of the Goods

Designation of the  
Customs Collector, .....  
..... Custom House.

The 195 .....

[No. 49.]

M. A. RANGASWAMY, Secy.

## CENTRAL EXCISE COLLECTORATE, DELHI

## CENTRAL EXCISE

New Delhi, the 30th June 1956

**S.R.O. 1475.**—In exercise of the powers conferred on me by Rule 233 of the Central Excise Rules, I hereby direct all manufacturers of "Vegetable Non-essential Oils" in the States of Punjab, Delhi, Ajmer, Himachal Pradesh, Patiala and East Punjab States Union, Jammu and Kashmir and Rajasthan excluding the Tehsils of Sironj and Latteri who are required to take out licences under the Central Excise Rules, 1944 for such manufacture, to exhibit in the clearance applications and in the accounts maintained and returns furnished by them, the weight of the oils in terms of Tons, Cwt, Quarter and Lbs.

[No. CVI(Y)6/1/56/49908.]

B. B. BARMAN, Collector of Central Excise, Delhi.

## MINISTRY OF COMMERCE AND INDUSTRY

## TEA CONTROL

New Delhi, the 20th June 1956

**S.R.O. 1476.**—In exercise of the powers conferred by section 49 of the Tea Act, 1953 (29 of 1953), the Central Government hereby makes the following amendments in the Tea Rules, 1954, the same having been previously published as required by sub-section (1) of the said section, namely:—

In rule 6 of the said Rules—

- (i) the proviso shall be omitted;
- (ii) after sub-rule (2), the following sub-rule shall be inserted, namely:—

"(3) The office of a member of the Board or the Committee shall fall vacant from the date on which his resignation is accepted or on the expiry of thirty days from the date of receipt of Intimation of resignation, whichever is earlier."

[No. 32(2)Plant/56.]

New Delhi, the 22nd June 1956

**S.R.O. 1477.**—In exercise of the powers conferred by section 49 of the Tea Act, 1953 (29 of 1953), the Central Government hereby directs that the following amendments shall be made in the Tea Rules, 1954 published with the notification of the Government of India in the Ministry of Commerce and Industry No. S.R.O. 1026, dated the 25th March, 1954, the said amendments having been previously published as required by sub-section (1) of the said section, namely:—

In the said rules—for rule 39, the following rule shall be substituted, namely:—

**“39. Payments from the Tea Fund.”**—(1) All payments made by the Central Government to the Board under section 26 of the Act out of the proceeds of the cess levied under sub-section (1) of section 25 of the Act shall be debited to the Major Head ‘43-Industries and Supplies’.

(2) Payments by or on behalf of the Board shall be made in cash or by cheque drawn against a current account of the Board.”

[No. 32(7)Plant/55.]

P. V. RAMASWAMY, Under Secy.

#### ORDER

New Delhi, the 25th June 1956

**S.R.O. 1478.**—In pursuance of rule 9 of the Central Advisory Council (Procedural) Rules, 1952, made under Section 30 read with Section 5(3) of the Industries (Development and Regulation) Act, 1951 (LXV of 1951), the Central Government hereby ratifies the appointment of Shri Jatin Mitra, President of the Hind Mazdoor Sabha, 22/B, Southern Avenue, Calcutta, as a substitute to take the place of Shrimati Maniben Kara, a member of the Central Advisory Council of Industries, for the purpose of attending the meeting of the said Council which was held on the 20th June 1956.

[No. 3(3)IA(GB)/56.]

R. N. KAPUR, Under Secy.

#### CORRIGENDUM

New Delhi, the 26th June 1956

**S.R.O. 1479.**—In the notification of the Government of India in the Ministry of Commerce and Industry No. S.R.O. 887, dated the 17th April 1956, published in the *Gazette of India Extraordinary*, Part II—Section 3, dated the 17th April 1956,

In para. (1) for “296” read “296B”, and for “296A”, “296B” and “296C” read “296C”, “296D” and “296E” respectively.

[F. No. 6/2/56-IP(B).]

T. S. KUNCHITHAPATHAM, Under Secy.

#### (Indian Standards Institution)

Delhi, the 18th June 1956

**S.R.O. 1480.**—In exercise of the powers conferred by sub-regulation (1) of regulation 3 of the Indian Standards Institution (Certification Marks) Regulations, 1955, the Indian Standards Institution hereby notices the issue of errata slips, detailed in column (4) of the Schedule hereto annexed, in respect of the Indian Standards specified in column (2) of the said Schedule.

## THE SCHEDULE

Sl. No.	No. and title of Indian Standard	No. and date of Gazette Notification in which establishment of Indian Standard was notified	Particulars of Errata Slips issued
(1)	(2)	(3)	(4)
1.	IS : 249-1951 Specification for Sodium Bichromate, Technical.	S.R.O. 658 dated the 26th March 1955	At page 4, Appendix C, clause 2.1, line 2, read 'to constant weight' for 'for at least 3 hours'.
2.	IS : 308-1953 Specification for dissolved acetylene (Gas).	Do.	At page 4, clause A-4.2.1, line 2, add the following sentence at the end of the clause : 'The solution shall be saturated with sodium bicarbonate, in excess.'
			At page 5, clause A-4.3, lines 9 and 10 from the end, read 'evaporate the solution to dryness and bake the residue for one hour', for 'boil again to remove free chlorine.'
			At page 5, clause A-5.2 line 3, read 'evaporate the solution to dryness and bake the residue for one hour' for 'boil to remove free chlorine.'
3.	IS : 440-1955 Methods for Chemical Analysis of Copper.	S.R.O. 3670 dated the 2nd December 1955	At page 4, clause 6.2, penultimate line, read '150°±5°C' for '120°±5°C' At page 5, clause 8.1—Read the following for the existing clause : '8.1 Distillation Apparatus—consisting of a one-litre Erlenmeyer flask with a standard-taper ground-glass stopper carrying a distillation tube, a thermometer and a pressure regulator tube that comes within 1/8 to 1/4 in. of the bottom of the flask. The type of apparatus is shown in Fig 2.'
4.	IS : 441-1955 Methods for Chemical Analysis of Brasses and Bronzes.	S.R.O. 3538 dated the 11th November, 1955.	At page 5, clause 6.2, line 14, read 'cold dilute nitric acid (3:97)' for 'cold nitric acid (3:7)'

(1)

(2)

(3)

(4)

At page 9, clause 13.1—Read the following for the existing clause :

‘13.1 *Distillation Apparatus*—consisting of a one-litre Erlenmeyer flask with a standard-taper ground-glass stopper carrying a distillation tube, a thermometer and a pressure regulator tube that comes within  $1/8$  to  $1/4$  in. of the bottom of the flask. The type of apparatus is shown in Fig. 2.’

5 IS : 495-1954 Specification for Graphite, Flake, for Lubricants. S.R.O. 658 dated the 26th March, 1955.

At page 4, Appendix B, Clause B-5.2.1, line 3, read ‘solution is alkaline to phenolphthalein’ for ‘solution is no alkaline to phenolphthalein.’

6 IS : 582-1954 Methods of Sampling and Test for Vegetable and Chrome Sanned Leathers. S.R.O. 1172 dated the 25th May, 1955.

At page 4, clause 2.2, read ‘2.2 *Positions of Sampling for Chemical Analysis*’ for ‘2.2 *Positions of Sampling*

At page 5, col. 1, introduce the following new clauses after 2.2.4:

‘2.3 *Position of Sampling for Physical Tests*—Test specimens of required dimensions shall be cut from the butt portion 4 in. (or 10 cm) from the backbone, the longer side lying parallel to the backbone.

‘2.3.1 For average test results, six test specimen shall be tested.’

7 IS : 614-1954 Methods of Measurements on Receivers for Amplitude Modulation Broadcast Transmissions (Tentative). S.R.O. 829 dated the 11th April, 1955.

At page 7, clause 3.6.9, item (c) read ‘ $-26$  dB (V/m)’ for ‘ $-25$  dB (V/m)’

8 IS : 619-1955 Specification for Pruning Knives, Hooked and Curved. S.R.O. 1842 dated the 16th August, 1955.

At page 3, Table I Dimensions of Pruning Knives, Hooked Blade—Type 1

Dimension G against Size 5 read ‘ $1\frac{5}{8}$ ’ for ‘ $1\frac{11}{16}$ ’.

(1)	(2)	(3)	(4)
9	IS : 649-1955 Methods of Testing Electrical Steel Sheets ( <i>Tentative</i> )	S.R.O. 458 dated the 17th February, 1956.	At page 2, clause 2.1, line 2, read 'cgs' for 'cg'. At page 2, clause 2.2, line 4, read 'cgs' for 'cg'. At page 5, clause 6.1.1, lines 5 to 7, read 'The use of dial gauges capable of measuring with an accuracy of one hundredth of a millimeter is recommended' for 'The use of dial gauges capable of measuring with an accuracy of one thousandth of an inch is recommended.'
10	IS : 652-1955 Specification for Wooden Separators for Lead-Acid Storage Batteries for Motor Vehicles.	S.R.O. 1884 dated the 26th August, 1955.	At page 4, clause 10.2, item (c), read 'Year of manufacture.' for 'Year and date of manufacture.'

Copies of these errata slips are available, free of charge, with the Indian Standards Institution, 19 University Road, Delhi-8.

(Sd.) D.V. KARMARKAR,  
Deputy Director (Marks),  
Indian Standards Institution.

[No. MDC/11(4).]

**S. R. O. 1481.**—In pursuance of sub-regulations (2) and (3) of regulation 3 of the Indian Standards Institution (Certification Marks) Regulations, 1955, the Indian Standards Institution hereby notifies that the Indian Standards particulars of which are given in the Schedule hereto annexed have been established during the period 1st to 15th June 1956.

#### THE SCHEDULE

Sl. No.	No. and title of the Indian Standard established	No. and title of the Indian Standard or Standards, if any, superseded by the new Indian Standard	Brief Particulars
(1)	(2)	(3)	(4)
1	IS : 827-1956 Specification for Sinew Guts ( <i>Tentative</i> ).	..	This standard covers the requirements for sinew guts used for stringing tennis and badminton rackets. (Price As. 0-12-0).
2	IS : 828-1956 Specification for Cricket Bats ( <i>Tentative</i> ).	..	This standard covers material dimensional and constructional requirements of four grades of cricket bats. (Price Re. 1).
3	IS : 829-1956 Specification for Hockey Sticks ( <i>Tentative</i> ).	..	This standard covers the material, dimensional and constructional requirements of hockey sticks (Price Re. 1).

(1)

(2)

(3)

(4)

4	IS : 854-1956 Specification for Handloom Cotton Turkish Towels, Bleached, Striped, Checked or Dyed.	..	This standard prescribes the constructional details and other particulars of three varieties of bleached, striped, checked or dyed handloom cotton turkish towels. (Price Rs. 1-8-0).
5	IS : 855-1956 Specification for Handloom Cotton Honeycomb Towels, Bleached, Striped, Checked, or Dyed.	..	This standard prescribes the constructional details and other particulars of two varieties of bleached, striped, checked, or dyed handloom cotton honeycomb towels. (Price Rs. 1-8-0).

Copies of all these standards are available for sale with the Indian Standards Institution, 19 University Road, Delhi-8.

(Sd.) D. V. KARMARKAR, Deputy Director (Marks),  
Indian Standards Institution.  
[No. MDC/11(4).]

#### CORRIGENDUM

Delhi, the 20th June 1956

**S.R.O. 1482.**—In the Ministry of Commerce and Industry (Indian Standards Institution) Notification No. S.R.O. 1255 dated the 15th May 1956, published at page 820 of the *Gazette of India*, Part II-Section 3, dated the 2nd June 1956:

(i) at page 820, for Rs. /12/- printed in the entry under column 'Marking Fee per Unit' in the Schedule, read Rs. 12/-.

(Sd.) D. V. KARMARKAR, Deputy Director (Marks),  
Indian Standards Institution.

[No. MDC/11(6).]  
S. K. PAL, Under Secy.

#### MINISTRY OF FOOD AND AGRICULTURE

New Delhi, the 25th June 1956

**S.R.O. 1483.**—In pursuance of Section 4(g) of the Indian Coconut Committee Act, 1944, the Central Government is pleased to notify the appointment of Shri T. Bhaskara Rao, member of the Rajya Sabha, as a member of the Indian Central Coconut Committee vice Shri S. N. Dwivedy.

[No. 7-50/56-Com.I.]

**S.R.O. 1484.**—The following draft of a further amendment to the Indian Oilseeds Committee Rules, 1947, which the Central Government proposes to make in exercise of the powers conferred by section 17 of the Indian Oilseeds Committee Act, 1946 (9 of 1946), is published as required by sub-section (1) of the said section, for the information of persons likely to be affected thereby, and notice is hereby given that the said draft will be taken into consideration on or after the 31st July, 1956.

Any objections or suggestions which may be received from any person with respect to the said draft before the date so specified will be considered by the Central Government.

*Draft Amendment*

In the said Rules, for Part I of Form 'A', the following shall be substituted, namely:—

- (1) Name of the Oil Mill;
- (1-a) Whether the mill is registered under the Factories Act;
- (2) Address of the Mill:
  - (i) At:—
  - (ii) Post:—
  - (iii) Taluka:—
  - (iv) District:—
  - (v) State:—
- (3) Name and address of the owner or Managing Agent;
- (4) Amount of cess payable for the month:

Rs.      As.

- (5) Total crushing capacity and capacity utilised during the month of the different types of presses used in the Mill.

1	2	3	4
Type of presses used. (Strike out whichever is not applicable).	Number of presses in each type	Total crushing capacity in terms of seeds per hour of each type of press in B. Maunds (88 2/3 lbs.)	Total quantity of oilseeds crushed (in B. Mds.) and the total number of hours taken for crushing.
(1) Hydraulic Press.			
(2) Expeller.			
(3) Hand Press.			
(4) Rotary Ghani.			
(5) Other types.			
(Specify each type).			

NOTE.—Columns 2 and 3 may be given in the month of January (every year). Any change during the year should be reported.

- (6) Quantities of Oilsseeds crushed, oil extracted and Oilcakes produced during the month (in B. Mds. and Pounds).

Name of seed (specify whether with or without shells in the case of groundnut)	Quantity of seed crushed	Quantity of Oil extracted	Quantity of Oil cake produced.

*Declaration:*

I do hereby declare that I have compared Parts I and II of the Form A, with the records and books of my mill and that they are, in so far as I can ascertain, accurate and complete. I also hereby declare that I have sent the returns and paid the amount of cess assessed for the preceding months.

Signature.  
[No. F.5-21/56-Com.I.]

*CORRIGENDUM*

New Delhi, the 23rd June 1956

**S.R.O. 1485.**—The words "Shri V. R. Venkatarama Ayyar, M.A., Padupet, Panruti, South Arcot District" appearing in the Government of India, Ministry of Food & Agriculture, Notification No. F.6-4/56-Com.I, dated the 12th March, 1956, published in Part II Section 3 of the Gazette of India, dated 17.3.1956 and numbered as S.R.O. 645, may be substituted by the words "Shri V. R. Venkataraman, M.A., Mirasdar, Pathupet P.O., (Via) Panruti, South Arcot District".

[No. 6-4/56-Com.I.]  
MOKAND LALL, Under Secy.

New Delhi, the 30th June 1956

**S.R.O. 1486.**—In pursuance of the provisions of Rule 26(4) of the Indian Oilseeds Committee Rules, 1947 framed under Section 17 of the Indian Oilseeds Committee Act, 1946 (IX of 1946), the Central Government hereby publish the audited accounts of the "Receipts and Expenditure" of the Indian Central Oilseeds Committee for the year ending 31st March, 1955.

INSPECTION REPORT ON THE ACCOUNTS OF INDIAN CENTRAL OILSEEDS  
COMMITTEE, GANDHI BHAWAN, HYDERABAD FOR THE YEAR 1954-55.

Name of the Secretary Shri S. N. Sinha (from 1-4-54 to 7-9-54)  
Name of the Local Auditor Dr. P. J. Gregory (from 8-9-54 onwards)  
Dates of Visit : Shri T. S. Anand.  
30-11-55 to 5-12-55

PART I (PREVIOUS REPORT)—NIL

## PART II(CURRENT REPORT)

1. A statement showing receipts and expenditure for the year 1954-55 prepared under rule 26(4) of the rules and regulations of the Indian Oilseeds Committee Act, 1946, is appended to this report. This was checked with relevant records maintained by the Committee. The following remarks are offered in this connection.

2. **Finance.**—The financial position of the Committee during the year under report compared to that of the previous two years is as follows:—

	1952-53	1953-54	1954-55
Income (excluding Debt Head expenditure)	12,2161	15,03,05	18,19,955
Expenditure (excluding Debt Head expenditure)	7,68,364	6,41,984	9,35,986

The closing cash balance as on 31st March, 1955 was Rs. 6,63,683/14/7 besides Rs. 252 as imprest amount. A sum of Rs. 68,34,390/10/0 was also held in deposits and securities on that date.

**3. Receipts.**—Under Section 10 of Indian Oilseeds Committee Act, 1946 read with rule 30 of the rules and regulations made thereunder the owner of every mill is required to furnish to the Collector on or before 7th day of each month a return in form 'A' showing *inter alia* the total amount of oil extracted in the mills during the preceding month. A copy of this return is passed on by the Collector to the Committee indicating the amount of cess assessed to enable it to watch the receipt of credit. This return is not being received regularly from all the Collectortates. On enquiry it appears that out of a total of about 8,000 mills scattered throughout the country, the returns are being received only from about three thousands mills. Though this lacuna was pointed out in the Inspection Report for the year 1952-53, there has been no appreciable progress in getting these returns. As these returns from the basis of main revenues of the Committee early steps are required to be taken to incorporate the proposed penal clause in the Indian Central Oilseeds Committee Act, 1946 to ensure the punctual submission of these returns in the interest of proper functioning of the Committee.

(ii) The yearly statements of assessments and realisation of cess received by the Committee revealed that the total amount of about Rs. 300 lakhs on account of arrear of cess till 31st March, 1955 in respect of these mills only which have rendered the returns is still due from the various collectorates. It is imperative that some effective steps are taken to effect the recoveries of arrear of the cess collection.

**4. Non-receipt of audit certificate.**—Annexure 'A' to the report shows Cases in which audit certificates are still awaited from the different State Accountants General upto the date of audit. It will be seen therefrom that audit certificates to the sum of Rs. 10,32,684 are wanting. In some cases these certificates have not been received from the year 1951-52 onwards. In absence of these certificates it cannot be ensured that the sums advanced by the Committee have been actually spent. The Committee is advised to take up the matter at higher level to obtain the audit certificates and obtain refunds of unspent balances as already pointed out in para. (ii) of the Inspection Report for the period 1953-54.

**5. Excess payments in Provident Fund.**—The interest on the balance of the subscribers to the Indian Central Oilseeds Committee Provident Fund on 31st March, 1954 and for the year 1954-55 has been credited to the subscribers account.

at the rate 3.5 per cent. per annum against 3.25 per cent. announced by the Ministry of Finance in their notification No. F.23(1)-EV/54, dated the 23rd March 1954. The rate of 3.5 per cent. has been fixed by the Ministry of Finance in their notification No. F.23(1)-EV/55, dated the 10th March, 1955 for the year 1955-56. The discussions revealed that the Committee has all along been crediting the interest to the subscribers account at the rate applicable for the subsequent years. This has resulted in excess credits to the Provident Fund. It is suggested that all accounts may please be recast and excess credits thus afforded be written back in the accounts for 1955-56.

6. **Service Books.**—A test check of the Service Books has revealed that the increments have not been calculated correctly in accordance with F.R. 26 as amended from time to time with the results that excess payments have been made in the following cases:—

(i) Shri S. Narayanan, officiated as Assistant Superintendent from 26th March, 1953 to 25th April, 1953 and from 12th May 1953 onwards. His date of increment comes to 12th April, 1954 against 10th April, 1954 actually allowed.

(ii) Shri Dalip Singh was declared substantive temporary with effect from 6th October, 1948 and earned leave taken by him with effect from 2nd November, 1948 to 16th November, 1948 counts for increments under F.R. 26(d). The postponement of the increment to 20th October, 1949 was therefore irregular. He was on half average pay leave with effect from 1st May, 1952 to 20th June, 1952 and committed leave from 26th September, 1953 to 30th September, 1953. These periods have been incorrectly counted towards increments.

(iii) Shri Suresh Chand Aggarwal was on earned leave from 14th June, 1951 to 16th June, 1951 and 16th August, 1951 to 18th August, 1951 but his increment has been postponed only for 3 days instead of 6 days. He was again on half pay leave from 3rd October, 1952 to 4th October, 1952 but the period has been counted towards increment against the provision of F.R. 26(d) as amended by C.S. No. 298, dated the 28th May, 1952.

(iv) Shri Baldev Singh was on half pay leave for 96 days with effect from 27th August, 1953 to 30th November, 1953 but the period has been incorrectly counted towards increment. The date of increment on 22nd June, 1954 thus requires revision.

The above irregularities have occurred mainly due to the fact that the Committee is not posted with the latest corrections in the F.Rs. and S.Rs. It is desirable that some arrangements are made to obtain copies of correction slips as soon as they are issued. The irregularities pointed out above may please be regularised. The cases of the remaining staff may also please be reviewed in the light of the latest orders and regularised.

7. **T.A. Bills of the Secretary.**—In the following T.A. Bills, the Secretary, Indian Central Oilseeds Committee has been paid road mileage to and from the Air Port and road mileage within a radius of 5 miles at outstations.

Bill bearing voucher No.	Amount of the Bills
294/1 dt. 21-2-1955	Rs. 610/-
155/1 dt. 4-11-54	Rs. 499/4/-
155/2 dt. 4-11-54	Rs. 183/7/-

These bills are countersigned by the Additional Secretary, Ministry of Food and Agriculture as President of the Committee. These cases are brought to his notice for review and future guidance. It has been verified that road mileage to and from the Air Port is not being claimed now.

8. **Non-Payment of Rent of the Building (Office) including Electric and Water Charges.**—In para. 7 of the Inspection Report for the year 1950-51, it was pointed out that no rent, electric and water charges have been paid by the Committee for the Office accommodation since the creation of Office in May, 1947. The matter is still under correspondence and awaits finalisation. This may please be expedited.

9. An audit note containing minor points of procedure has been handed over to the Secretary, Indian Central Oilseeds Committee for necessary action and showing compliance to the next audit party.

(Sd.) T. S. ANAND, Local Auditor.

(Sd.) K. CHAND, Assistant Audit Officer,  
Food, Rehabilitation and Supply,  
Camp: Hyderabad.

## ANNEXURE—A [REFERRED TO IN PARA 4 (1)].

Serial No.	Name of Scheme	Amount Paid	Audit Certificate Received for	Audit Certificate Still Due	Period from which Audit certificates are wanting
1	2	3	4	5	6
<b>ASSAM</b>					
1	Scheme for conducting research in Brassica in Assam	38,594 0 0	10,616 12 0	27,977 1 0	1952-53
2	Scheme for multiplication of improved strain of mustard in Assam	1,688 0 0	489 0 0	1,199 0 0	1953-54
3	Scheme for setting up and running demonstration unit of Wardha Ghanis in Community Project Block in Pasighat in Assam	5,000 0 0	..	5,000 0 0	1954-55
4	Scheme for setting up and running demonstration unit of Wardha Ghanis in Community Project areas in Assam	30,700 0 0	..	30,700 0 0	1954-55
<b>BIHAR STATE</b>					
1	Scheme for organising of Co-operative Societies of oilmen and Development of village oil crushing industry	58,574 0 0	34,996 0 6 (A certificate received up to 1952-53 only).	23,577 15 6	1953-54
2	Scheme for the evolution of high yielding varieties of oil-seeds in Bihar	53,800 0 0	..	53,800 0 0	No certificate received 1951-52.
3	Scheme for the grant of loans to Co-operative Societies of oilmen—Interest free	1,666 10 6	..	1,666 10 6	Do.
4	Scheme for setting up and running demonstration units of Wardha Ghanis in the Community Project	28,200 0 0	..	28,200 0 0	1954-55
<b>BOMBAY STATE</b>					
1	Scheme regarding issue of interest free loans to Co-operative Societies in Bombay State for construction of godowns etc. Groundnut Fund	1,00,000 0 0	..	1,00,000 0 0	No Certificate from 1952-53.
2	Scheme for setting up and running demonstration units of Wardha improved ghanis in Community Project Areas in Bombay	18,490 0 0	..	18,900 0 0	1954-55
3	Scheme for research on the cultivation of the West Africal Oil Palm, red Palm in India	3,000 0 0	..	3,000 0 0	1954-55

**MADHYA PRADESH**

- 1 Pilot Scheme for conducting crop cutting experiments on oilseed crop
- 2 Scheme for estimating cost of labour of materials for the production of Cotton Groundnut and Jawar, Madhya Pradesh
- 3 Scheme for setting up and running demonstration centres of Wardha Ghanis in Community Project areas in Madhya Pradesh

2,811	3	0	2,540	7	4	270	11	8	1953-54
24,829	0	0	..			24,829	0	0	1952-53
10,000	0	0	..			10,000	0	0	1954-55

**MADRAS STATE**

- 1 Pilot scheme for conducting crop cutting experiments on the Kharif Oilseed crop in Madras
- 2 Scheme to run six zonal nucleus seed farms of improved strains of groundnut and castor in Madras
- 3 Scheme for the establishment of a pilot plant for the manufacture of cottonseed oil to be worked at the Oil Technological Institute, Anantapur
- 4 Scheme for the grant of interest free loans to the Market Committees for the construction of godowns in Madras—Groundnut Fund
- 5 Scheme for research on cytology of the Groundnut in Madras
- 6 Scheme for setting up and running demonstration units of Wardha Ghanis in Community Project Areas in Madras State
- 7 Scheme for increasing the production of oilseed in Madras State
- 8 Revised scheme for research on the physiology of Groundnut in Madras State

16,933	0	0	..			16,933	0	0	1951-52
64,683	0	0	34,114	15	9	30,568	0	3	1953-54
2,835	0	0	..			2,835	0	0	1954-55
48,500	0	0	..			48,500	0	0	1952-53
2,770	0	0	..			2,770	0	0	1954-55
6,250	0	0	..			6,250	0	0	1954-55
27,262	0	0	..			27,262	0	0	1954-55
5,894	0	0	..			5,894	0	0	1954-55

**ORISSA**

- 1 Scheme for the grant of loans to Co-operative Societies of oilmen—Interest free—Orissa
- 2 Scheme for collection and crushing of neemseed and utilisation oil industry—Orissa
- 3 Scheme for setting up and running demonstration units of Wardha Ghanis in Community Project areas in Orissa State

9,000	0	0	3,705	0	0	5,295	0	0	1952-53
4,971	0	0	..			4,971	0	0	1954-55
11,370	0	0	..			11,370	0	0	1954-55

**UTTAR PRADESH**

- 1 Pilot scheme for conducting crop cutting experiments on rape & mustard crop in Uttar Pradesh
- 2 Scheme for research on oilseeds in Uttar Pradesh
- 3 Scheme for investigation of Linseed Rust-Uttar Pradesh

4,183	5	4	..			4,183	5	4	1951-52
59,743	0	0	43,351	0	0	28,298	0	0	1954-55
(Plus receipts 11,906)									
35,600	0	0	19,870	6	0	15,729	10	0	1954-55

1	2	3	4	5	6
4	Scheme regarding oil from wild Cassia varieties Muslim University, Aligarh	4,860 0 0	2,099 6 0	2,760 10 0	1953-54
5	Scheme of research on the genetics and breeding of mustard at the college of Agriculture, Banaras Hindu University	18,420 0 0	3,548 12 0	14,871 4 0	1954-55
<b>WEST BENGAL</b>					
1	Scheme for oilseed research in West Bengal	1,00,137 8 0 (Plus receipts 416 8 9)	82,780 3 9	17,773 13 0	1954-55
2	Scheme for the multiplication of improved strains of mustard in West Bengal	5,310 0 0	..	5,310 0 0	1953-54
3	Scheme for investigation as reclamation rancid food fats & studies on the mechanism of antioxidant action and investigation on prevention of Development of off-flavour in bread, biscuits & crackers at University College of Science & Technology, Calcutta.	6,000 0 0	5,399 8 6	600 7 6	
4	Scheme for multiplication and distribution of Linseed types and experiments on the extraction of its fibre together with Demonstration to the cultivators of West Bengal	3,009 0 0	..	3,009 0 0	1954-55
5	Scheme for development of Village Oils Crushing Industry in West Bengal	23,000 0 0	..	23,000 0 0	1954-55
<b>HYDERABAD</b>					
1	Multiplication improved castor Scheme	81,763 1 0	23,559 9 8	58,203 7 3	1953-54
2	Scheme for the establishment of Oilseed research sub-stations at Raichur and Parbhani	26,267 0 0	8,306 0 0	17,961 0 0	1953-54
3	Scheme for research on Pests and diseases of Castor and other oilseeds	32,359 0 0	19,647 1 3	12,711 14 9	1954-55
4	Revised scheme on effect of different kinds of storage on oilseeds at Central Laboratories for scientific and Industrial Research, Hyderabad—Deccan	5,310 0 0	..	5,310 0 0	1954-55
<b>MADHYA BHARAT</b>					
1	Scheme for the Survey of Minor oilseeds in Madhya Bharat	5,862 0 0	3,441 14 6	2,420 1 6	1954-55
2	Scheme for setting up and running demonstration units of Wardha Ghanis in Community Project areas in Madhya Bharat	6,800 0 0	..	6,800 0 0	1954-55

*PEPSU*

1 A five year scheme for the improvement of oilseeds crops (besides groundnut) in Pepsu	38,390	0	0	13,090	0	0	25,300	0	0	1954-55
---	--------	---	---	--------	---	---	--------	---	---	---------

*RAJASTHAN*

1 Pilot scheme for crop cutting experiments on Oilseeds crops in Rajasthan	3,850	0	0	700	0	0	3,150	0	0	1954-55
--	-------	---	---	-----	---	---	-------	---	---	---------

*SAURASHTRA*

1 Scheme of research on groundnut in Saurashtra	31,960	0	0	15,138	1	0	17,435	15	0	1953-54
	(Plus receipts 614	0	0							
2 Scheme for multiplication and distribution of improved groundnut seeds in Saurashtra State	30,817	0	0	21,134	1	6	13,020	15	6	1954-55
	(Plus receipt 3,338	1	0							
3 Scheme for the survey of Minor Oilseeds in Saurashtra State	2,000	0	0	..			2,000	0	0	1953-54

*VINDHYA PRADESH*

1 Scheme for the organisation of Co-operative Societies of Oilmen in Vindhya Pradesh	5,876	0	0	4,689	8	6	1,186	7	6	1954-55
2 Scheme for the Survey of Minor oilseeds in Vindhya Pradesh	2,523	0	0	..			2,523	0	0	1954-55
3 Scheme for conducting pilot crop cutting experiments on Oilseed crops in Vindhya Pradesh during 1953-54	1,000	0	0	..			1,000	0	0	1954-55

*KUTCH STATE*

1 Scheme for setting up and running demonstration units of Wardha Ghani in Kutch State	5,200	0	0	..			5,200	0	0	1954-55
--	-------	---	---	----	--	--	-------	---	---	---------

*AJMER*

1 Scheme for setting up and running Wardha Ghani in the Community Project Areas in Ajmer State	2,350	0	0	..			2,350	0	0	1954-55
--	-------	---	---	----	--	--	-------	---	---	---------

*BHOPAL*

1 Scheme for setting up and running a demonstration unit of Wardha Ghani in Bhopal Community Project Area	4,000	0	0	..			4,000	0	0	1954-55
2 Scheme for development of Village Oil Industry in Bhopal	8,250	0	0	..			8,250	0	0	1954-55

1	2	3	4	5	6
<b>HIMACHAL PRADESH</b>					
1	Scheme for setting up and running demonstration units of Wardha Ghani in the Pootta Community Development Project Area in Himachal Pradesh . . . . .	5,000 0 0	..	5,000 0 0	1954-55
<b>MANIPUR</b>					
1	Advance of Interest free loans to the Co-operative Societies of oilmen for the purchase of oilseeds and construction of godowns in Manipur State . . . . .	10,000 0 0	..	10,000 0 0	1954-55
<b>UTTAR PRADESH</b>					
1	Scheme for the investigation of nutritive value of different oil cakes produced by the Ghani and expeller process at I. V. R. I. . . . .	2,16,310 0 0 (Plus 6,777 12 0 receipts)	1,62,533 13 0	60,553 15 0	1954-55
<b>INDIAN AGRICULTURAL RESEARCH INSTITUTE, NEW DELHI</b>					
1	Scheme for research on phyllody diseases of Sesamum . . . . .	10,791 0 0	..	10,791 0 0	1952-53
2	Scheme for agronomical studies of oilseeds . . . . .	12,323 0 0	..	12,323 0 0	1952-53
3	Scheme for developing a method to determine the unsaturation of small quantity of oil . . . . .	13,498 0 0	..	13,498 0 0	1952-53
4	Scheme for cytological studies on some oilseeds crops of India . . . . .	23,986 0 0	..	23,986 0 0	1952-53
5	Scheme for the development of antioxidants for edible oils and fats . . . . .	3,200 0 0	..	3,200 0 0	1954-55
6	Scheme for physiological investigations on autotetraploids of some oilseeds crops . . . . .	3,500 0 0	..	3,500 0 0	1954-55
7	Linseed Rust Scheme . . . . .	17,040 14 3	7,926 3 3	9,114 11 0	1952-53
<b>PLANT INDUSTRY, INDORE</b>					
1	Scheme for breeding for disease resistance in Linseed for Malwah at the Institute of Plant Industry, Indore . . . . .	8,567 0 0	3,207 8 6	5,359 7 6	1954-55

## POONA

1 Scheme for indentification of different vegetable oils at the National Chemical Laboratory, Poona	14,980	0	0	3,238	12	9	11,741	3	3	1954-55
2 Scheme for the pilot plant development of the processes for purifying and refining of neem oil at National Chemical Laboratory, Poona	25,500	0	0	..			25,000	0	0	1952-53
3 Scheme for the utilisation of Mamiali & other less known vegetable oils in paints and varnishes at National Chemical Laboratory, Poona	1,731	0	0	..			1,731	0	0	1954-55

## INDIAN COUNCIL OF AGRICULTURAL RESEARCH

1 Pilot Scheme for crop cutting experiments on oilseeds crops. Extension of the Post of Statistical Investigator, at I.C.A.R., New Delhi	3,000	0	0	..	3,000	0	0	1954-55
--	-------	---	---	----	-------	---	---	---------

## ANDHRA

1 Scheme for the establishment of the Regional Oilseed Research Station at Rayalaseema	27,900	0	0	..	27,900	0	0	1954-55
2 Scheme to run two Zonal Nucleus seed farms of improved strains of groundnut and castor	8,008	0	0	..	8,008	0	0	1953-54

## MYSORE

1 Scheme for the Survey of Minor Oilseeds in Mysore State	2,660	0	0	..	2,660	0	0	1953-54	
	15,62,807	15	10	5,30,124	1	9½	10,32,683	14	½

Statement of Accounts of Receipts and Expenditure for the year ending 31st March, 1955.

Receipts	Amount	Total	Payments	Amount	Total
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Opening balance on 1-4-54 :			A. Administration of Indian Central Oilseeds Committee	..	1,44,929 5 5
Bank	4,68,829 2 0	..	B. Travelling Allowance to members		8,220 10 0
Imprest Cash	252 0 0		C. Measures taken for promoting Agricultural Research		4,15,034 0 0
Securities	61,37,390 10 0	66,06,471 12 0	D. Measures taken for promoting Technological Research		33,071 11 0
	66,06,471 12 0	66,06,471 12 0	E. Measures taken for promoting Marketing		50,154 7 9
Cess collections under Section 3(2) of the Indian Central Oilseeds Committee Act, 1946	15,21,649 3 3		F. Measures taken for promoting Development of Oilseeds Crushing Industry		2,83,075 7 6
Interest on investments	2,26,331 4 0		G. Subsidies for Publications		1,500 0 0
Miscellaneous receipts	214 7 6		H. Deposits and Advances refundable		5,000 0 0
Grant from the Central Government from the groundnut and linseed Funds	22,744 0 0		I. Investment of funds as on 31-3-55		
Recovery of Deposits and Advances	12,884 14 6		1. 3% Conversion Loan 1946-1986	4,96,093 12 0	
			2. 2½% Government of India Loan 1955	7,98,000 0 0	
			3. Short term deposit with Imperial Bank of India	3,00,000 0 0	
			4. 3½% Ten years Treasury Savings Certificate	50,000 0 0	
			5. Post Office National Savings Certificate	1,00,000 0 0	
			6. 2½% Government of India Loan 1960	9,59,375 0 0	
			7. 2½% Government of India Loan 1954	1,96,625 0 0	
			8. 3% (First Victory) Loan 1957	2,96,437 8 0	

Receipts from Research Schemes financed by the Indian Central Oilseeds Committee.

48,653 0 0	9. 3% (Second Victory Loan), 1959/61	1,92,375 0 0
	10. 3% Government of India Loan 1964	4,62,968 12 0
	11. 3% (First Victory Loan), 1957	2,96,015 10 0
	12. 2½% Government of India Loan, 1962	5,47,312 8 0
	13. 3% Government of India Loan, 1963/65	4,62,187 8 0
	14. 3% (Second Victory Loan), 1959/61	4,80,000 0 0
	15. Short term deposit with the Imperial Bank of India	5,00,000 0 0
	16. 3½% National Plan Loan	1,97,000 0 0
363 9 0	17. Short term deposit with Imperial Bank of India, Hyderabad (Dn.)	5,00,000 0 0
	Closing balance on 31-3-1955 :	68,34,390 10 0
	Bank	6,63,683 14 7
	Imprest Cash	1252 0 0
		6,63,935 14 7
TOTAL . . . 84,39,312 2 3	TOTAL . . .	84,39,312 2 3

The Accounts have been examined and according to the best of information and in consideration of the explanation given as a result of test audit of the accounts they are correct.

(Sd.) K. CHAND,  
Assistant Audit Officer,  
Food, Rehabilitation & Supply.

(Sd.) P. J. GREGORY,  
Secretary,  
Indian Central Oilseeds Committee.

[No. 5-34/56-Com.I.]

T. S. KRISHNAMURTI Dy. Secy.

## ORDER

*New Delhi, the 23rd June 1956*

**S.R.O. 1487.**—In exercise of the powers conferred by section 5 of the Essential Commodities Act, 1955 (10 of 1955) the Central Government hereby directs that the powers conferred on it by sub-section (1) of section 3 of the said Act to provide for matters specified in clause (b) of sub-section (2) thereof shall in the State of Madras be exerciseable also by the State Government of Madras, subject to the condition that before making any order relating to any matter specified in clause (b) of the said sub-section (2), the State Government shall obtain the prior concurrence of the Central Government.

[No. F.7-9/55-C.(E).]

P. N. THAPAR, Secy.

## MINISTRY OF IRRIGATION AND POWER

*New Delhi, the 22nd June 1956*

**S.R.O. 1488.**—In pursuance of clause (1) of article 230 of the Constitution, the President hereby directs that the Chief Commissioner of Kutch shall, in the State of Kutch, exercise the powers and discharge the functions of the State Government under the provisions of the Seventh Schedule to the Electricity (Supply) Act, 1948 (54 of 1948).

[No. EL-II-303(10).]

S. VENKATARAMAN, Dy. Secy.

**MINISTRY OF WORKS, HOUSING AND SUPPLY**  
*New Delhi, the 22nd June, 1956*

**S.R.O. 1489**—In exercise of the powers conferred by the proviso to article 309 of the Constitution, the President, after consultation with the Union Public Service Commission, hereby directs that the following recruitment rules shall apply to the gazetted post of Controller of Printing in the Printing and Stationery Department, Ministry of Works, Housing and Supply :—

Name of post	Number of posts	Its classification & whether gazetted or non-gazetted.	Scale of pay	Whether a selection post or non-selection post	Age limit for direct recruits	Educational qualifications required	Whether educational qualifications prescribed for direct recruitment will apply in case of recruitment by promotion/transfer	Period of probation if any.	Methods of recruitment (i.e. vacancies by direct promotion/transfer recruitment, promotion or by transfer) and per centages of vacancies to be filled by the various modes	In case of recruitment by direct promotion/transfer which promotion/transfer to be made	If a D.P.C. exists for recruitment by promotion/composition thereof.	Circumstances in which Union public Service Commission is to be consulted in making recruitment.
1	2	3	4	5	6	7	8	9	10	11	12	13
Controller of Printing	1	Gazetted Class I.	Rs. 1300-60—1600	Selection post.	Between 35 and 45 years: Relaxable in the case of specially qualified and experienced candidates.	1. Graduate of a recognised University. 2. Diploma in Printing of the London School of Printing or any other recognised school of Printing/Technology- cal Institutes such	No	One year in the case of direct recruits.	By promotion failing which by direct recruitment (Grade I) in the Govt. of India Presses	General Managers & Managers of the Govt. of India Presses	1. Secretary, Min. of W.H. & S. or his representative. 2. Deputy Secy. in the Min. of W.H.&S. in-charge of S&P Deptt. 3. Chief Controller of Printing & Stationery (Members)	In accordance with the requirements of the UPSC (consultation) Regulations.

1	2	3	4	5	6	7	8	9	10	11	12	13
---	---	---	---	---	---	---	---	---	----	----	----	----

as City &  
Guilds  
(London)  
Stationer's  
Technical  
Board (Lon-  
don) etc.  
2. At least  
5 years ex-  
perience as  
Manager or  
Works Ma-  
nager of a  
large Govt.  
or Commer-  
cial Print-  
ing Press.

4. Chairman  
or a member of  
the U.P.S.C.—  
(President.)

[No. 24 (1)/56-S&P. I]

C. A. SUBRAHMANYAM, *Dy. Secy.*

## MINISTRY OF REHABILITATION

*New Delhi, the 20th June, 1956.*

**S.R.O 1490.**—In pursuance of sub-rule (1) of rule 48 of Order XXI of the First Schedule to the Code of Civil Procedure, 1908 (Act V of 1908) the Central Government hereby appoints the officers specified in column 1 of the table below as officers to whom notice of orders attaching the salaries and allowances of the officers specified in the corresponding entries in column 2 of the said table shall be sent :—

TABLE

Officers to whom notice should be sent	Officers whose salaries and allowances are attached
Pay and Accounts Officer, Ministry of Rehabilitation, Branch Secretariat, Calcutta.	Gazetted Officers in the Branch Secretariat of the Ministry of Rehabilitation, Calcutta.
Under Secretary Ministry of Rehabilitation, Branch Secretariat, Calcutta.	Non-Gazetted Officers in the Branch Secretariat of the Ministry of Rehabilitation, Calcutta.

[No. Adm. 16(43)/56]

J.N. MATHUR, *Under Secretary.*

## DELHI DEVELOPMENT (PROVISIONAL) AUTHORITY

New Delhi, the 4th June, 1956

**S.R.O. 1491.**—In exercise of the powers conferred by Section 4 of the Delhi (Control of Building Operations) Act, 1955 (53 of 1955) the Delhi Development Provisional Authority hereby directs that the following amendments shall be made to Schedule II of its notification No. 1(4)/55-Admn., dated the 11th November, 1955 namely—

- (a) *Para 1 of Schedule II*—Delhi Municipal Committee—In clause (c), add the word and comma “graveyards” between the words “all areas left as” and “open parks”;
- (b) *Para 2, ibid.*—New Delhi Municipal Committee—In clause (e), add the word and comma “graveyards” between the words “all the areas left as” and “open parks”; and
- (c) *Para 4, ibid.*—Notified Area Committee, Civil Lines.—In clause (c) add the word and comma “graveyards” between the words “all areas left as” and “open parks”.

[No. F.1(4)/55-Admn.]

**S.R.O. 1492.**—In exercise of the powers conferred by Section 14 of the Delhi (Control of Building Operations) Act, 1955, (No. 53 of 1955) the Delhi Development Provisional Authority hereby directs that the powers exercisable under section 6 and sub-sections (2) and (3) of section 7 of the said Act may also be exercised by the Executive Engineer of the Authority in respect of the following categories of building applications, namely—

- (1) Re-erection of a dangerous wall;
- (2) Erection or omission of any internal partition wall; and
- (3) Raising the height of a compound wall, providing of a parapet wall on the top of the existing floor or providing any coping to the existing parapet wall or compound wall with a view to protect it from rain.

[No. F.1(5)/55-Admn.]

New Delhi, the 5th June 1956

**S.R.O. 1493.**—In exercise of the powers conferred by Section 19 of the Delhi (Control of Building Operations) Act, 1955 (53 of 1955), the Delhi Development Provisional Authority, with the previous approval of the Central Government, hereby makes the following amendments in the Delhi (Control of Building Operations) Regulations published with the notification of the Government of India in the Ministry of Health No. F.30-8/55-LSG., dated the 11th November 1955 namely:—

In Regulation 5 of the said Regulations:

- (1) In paragraph (2) (iv), for the words “an agreement with the Authority”, the words “an agreement with the Central Government” shall be substituted;
- (2) In paragraph (3) (ii), for the words “an agreement with the Authority”, the words “an agreement with the Central Government” shall be substituted;
- (3) In paragraph (3) (iii), for the words “the agreement with the Authority”, the words “the agreement with the Central Government” shall be substituted;
- (4) In paragraph (3) (iv), for the words “transfer to the Authority”, the words “transfer to the Central Government” shall be substituted;
- (5) In paragraph (3) (vii), for the words “any agreement he makes with the Authority”, the words “any agreement he makes with the Central Government” shall be substituted.

[No. F.1(6)/55-Admn.]

New Delhi, the 12th June, 1956

**S.R.O. 1494.**—In exercise of the powers conferred by section 14 of the Delhi (Control of Building Operations) Act 1955 (53 of 1955), the Delhi Development Provisional Authority hereby directs that the powers exercisable under section

10 of the said Act may also be exercised by the Enforcement Officer of the Authority.

[No. F.1(5)/55-Adm.]

A. V. VENKATASUBBAN, Secy.

### MINISTRY OF LABOUR

*New Delhi, the 20th June 1956*

**S.R.O. 1495.**—Whereas it appears to the Central Government that the employers and the majority of employees in relation to the factory of Messrs. Jayems Beechy & Co. Ltd., Diesel Engine Manufacturers, Warden House, Sir Pherozeshah Mehta Road, Fort, Bombay-1, have agreed that the provisions of the Employees' Provident Funds Act, 1952 (19 of 1952), should be made applicable to the said factory;

Now, therefore, in exercise of the powers conferred by sub-section (4) of section 1 of the Employees' Provident Funds Act, 1952 (19 of 1952), the Central Government hereby applies the provisions of the said Act to the said factory.

[No. PF.57(10)/56.]

**S.R.O. 1496.**—In exercise of the powers conferred by sub-section (1) of section 13 of the Employees' Provident Funds Act, 1952 (XIX of 1952), the Central Government hereby appoints Shri B. G. Bagwe, to be an Inspector for the whole of the State of Bombay for the purposes of the said Act, and of any Scheme framed thereunder, in relation to factories engaged in a controlled industry or in an industry connected with a mine or an oilfield.

[No. PF-31(186)/56.]

*New Delhi, the 22nd June 1956*

**S.R.O. 1497.**—In pursuance of paragraph 4 of the Employees' Provident Funds Scheme, 1952, the Central Government hereby nominates on the recommendation of the Government of Bombay, Shri M. Misbah, Deputy Secretary to the Government of Bombay, Finance Department as a member of the Regional Committee for the State of Bombay in the vacancy caused by the resignation of Shri R. C. Joshi, I.C.S., and makes the following amendment in the notification of the Government of India, in the Ministry of Labour No. S.R.O. 1281, dated the 20th June, 1953, namely:—

In the said notification for item (3), the following item shall be substituted, namely:—

(3) Shri M. Misbah, Deputy Secretary to the Government of Bombay, Finance Department, Bombay.

[No. PF.45(12)/56.]

### ORDERS

*New Delhi, the 20th June 1956*

**S.R.O. 1498.**—Whereas the industrial dispute between the employers in relation to Messrs. Eastern Minerals Ltd., Mohanpur, Ghatsila, and the Mohanpur Kynite Mines Workers' Union, Ghatsila, regarding wages, bonus, provident fund, gratuity etc., was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely Shri P. S. Bindra by the order of the Government of India in the Ministry of Labour No. S.R.O. 1697, dated the 26th July, 1955.

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal, with headquarters at Lucknow consisting of a single member, namely, Shri Matin Ahmed, Member, Labour Appellate Tribunal, and refers to that Tribunal the said dispute for adjudication.

[No. LR-2(14)/55.]

**S.R.O. 1499.**—Whereas the industrial disputes between the employers in relation to the Mosaboni Mines of the Indian Copper Corporation Ltd., and the Mosaboni Mines Labour Union regarding wages, hours of work, profit sharing bonus, gratuity etc., was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely Shri P. S. Bindra, by the order of the Government of India in the Ministry of Labour No. S.R.O. 1698, dated the 27th July, 1955.

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal with headquarters at Lucknow consisting of a single member, namely, Shri Matin Ahmed, Member, Labour Appellate Tribunal, and refers to that Industrial Tribunal the said dispute for adjudication.

[No. LR-2(59)/55.]

**S.R.O. 1500.**—Whereas the industrial dispute between the employers in relation to the Bombay Mutual Life Assurance Society, Limited, Bombay and their workmen was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely, Shri P. S. Bindra, by the order of the Government of India in the Ministry of Labour No. S.R.O. 3430, dated the 31st October, 1955;

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal with headquarters at Bombay consisting of a single member, namely, Shri M. D. Lal Kaka, Member, Labour Appellate Tribunal, and refers to that Industrial Tribunal the said dispute for adjudication.

[No. LR-90(35)/55.]

**S.R.O. 1501.**—Whereas the industrial dispute between the employers in relation to the Motor and General Insurance Company, Limited, Calcutta and their workmen regarding the dismissal of Shri Shihendra Mohan Majumdar was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely, Shri P. S. Bindra, by the order of the Government of India in the Ministry of Labour S.R.O. 309, dated the 2nd February, 1956;

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal with headquarters at Calcutta consisting of a single member, namely, Shri R. K. Basu, Member, Labour Appellate Tribunal, and refers to that Industrial Tribunal the said dispute for adjudication.

[No. LR-11(1)/56.]

**S.R.O. 1502.**—Whereas the industrial dispute between the employers in relation to Parasea Collieries Limited and South Parasea Collieries Limited and their workmen regarding the termination of the services of certain mining Sardars was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely Shri P. S. Bindra by the order of the Government of India in the Ministry of Labour No. S.R.O. 310, dated the 4th February 1956;

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal with headquarters at Calcutta consisting of a single member, namely, Shri R. K. Basu, Member, Labour Appellate Tribunal, and refers to that Industrial Tribunal the said dispute for adjudication.

[No. LR-II-55-1(1)/56.]

New Delhi, the 22nd June 1956

**S.R.O. 1503.**—Whereas the Industrial dispute between Shri Ramdhani, Mistry, Tub Contractor, Malkera Choitidih Colliery, and the employers in relation to the Malkera Choitidih Colliery, on the one hand, and their workmen on the other, regarding the dismissal of Shri Jogendra Sahu was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely Shri P. S. Bindra by the order of the Government of India in the Ministry of Labour No. S.R.O. 1755, dated the 6th August 1955.

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal with headquarters at Lucknow consisting of a single member, namely, Shri Matin Ahmed, Member, Labour Appellate Tribunal, and refers to that Industrial Tribunal the said dispute for adjudication.

[No. LR-II-2(9)/55.]

**S.R.O. 1504.**—Whereas the industrial dispute between the employers in relation to the Kotma Colliery of the Associated Cement Companies Limited and its workmen, regarding the alleged wrongful termination of the services of two workers, was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely, Shri P. S. Bindra by the order of the Government of India in the Ministry of Labour No. S.R.O. 34, dated the 31st December, 1955.

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal with headquarters at Lucknow consisting of a single member, namely, Shri Matin Ahmed, Member, Labour Appellate Tribunal, and refers to that Industrial Tribunal the said dispute for adjudication.

[No. LR-II-2(32)/55.]

**S.R.O. 1505.**—Whereas the industrial dispute between the employers in relation to Messrs. Indra Singh and Sons Ltd., and their workmen in the West Chirimiri Colliery regarding wages, lead and lift, etc. was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely, Shri P. S. Bindra by the order of the Government of India in the Ministry of Labour No. S.R.O. 3788, dated the 23rd December 1955.

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal with headquarters at Lucknow consisting of a single member, namely, Shri Matin Ahmed, Member, Labour Appellate Tribunal, and refers to that Industrial Tribunal the said dispute for adjudication.

[No. LR-II-2(85)/55.]

**S.R.O. 1506.**—Whereas the Central Government is of opinion that an industrial dispute exists between the employers in relation to Messrs Shaw Wallace & Co. Ltd., and their workmen in respect of the matters specified in the schedule hereto annexed;

And whereas the Central Government considers it desirable to refer the said dispute for adjudication;

Now, therefore, in exercise of the powers conferred by section 7 and clause (c) of sub-section (1) of section 10 of the Industrial Disputes Act, 1947 (XIV of 1947), the Central Government hereby constitutes an industrial tribunal of which Shri Matin Ahmed, Member, Labour Appellate Tribunal, shall be the sole Member, with headquarters at Lucknow and refers the said dispute for adjudication to the said Industrial Tribunal.

#### THE SCHEDULE

Alleged wrongful termination of the services of Shri Pyarc Lal, Trammer-Banksman, Bhamori Colliery, and Shri Kashi Prasad Verma, Electric Welder, Chandameta Workshop of M/S Shaw Wallace & Co Ltd., and the relief, if any, to which they are entitled.

[LR-II-55-2(5)/561]

New Delhi, the 23rd June 1956

**S.R.O. 1507.**—Whereas the industrial dispute between the employers in relation to Junnordeo Collieries of the Bharat Collieries Ltd., Junnordeo, and their monthly rated workmen regarding leave with pay, servant allowance, etc. was referred for adjudication to the Central Government Industrial Tribunal at Dhanbad, consisting of a single member, namely Shri P. S. Bindra by the order of the Government of India in the Ministry of Labour No. S.R.O. 3429, dated the 31st October 1955;

And whereas the services of Shri P. S. Bindra have ceased to be available;

Now, therefore, in exercise of the powers conferred by section 7 read with section 10 of the Industrial Disputes Act, 1947 (14 of 1947), the Central Government hereby constitutes an Industrial Tribunal with headquarters at Lucknow consisting of a single member, namely Shri Matin Ahmed, Member, Labour Appellate Tribunal, and refers to that Industrial Tribunal the said dispute for adjudication.

[No. LR-2(74)/55.]

R. C. SAKSENA, Under Secy.

New Delhi, the 21st June 1956

**S.R.O. 1508.**—The following draft of certain amendments to the Indian Coal Mines Regulations, 1926, which the Central Government proposes to make in exercise of the powers conferred by section 57 of the Mines Act, 1952 (XXXV of 1952), is published as required by sub-section (1) of section 59 of the said Act, for the information of all persons likely to be affected thereby; and notice is hereby given that the said draft will be taken into consideration on or after the 25th September 1956.

Any objections or suggestions which may be received from any person with respect to the said draft before the date so specified will be considered by the Central Government.

*Draft Amendment*

In the said Regulation—

(1) In regulation 24—

(i) in sub-regulations (2) and (3) before the words "personal supervision" the word "daily" shall be inserted;

(ii) for the proviso (b) to sub-regulation (3) the following proviso shall be substituted, namely:—

"(b) no such authorisation shall have effect for a period in excess of one week except with the previous consent of the Inspector nor without the like consent shall a second authorisation be made to take effect upon the expiry of the first;"

(iii) after sub-regulation (3) the following sub-regulations shall be inserted, namely:—

"(4) (a) When the Manager of mine wishes to vacate his office, he shall give notice thereof to the owner or agent of the mine at least one month before the day on which he wishes to vacate his office and he shall not vacate his office before the expiry of the period of the said notice unless permitted in writing by the Chief Inspector to do so or unless he has been relieved by a person duly qualified under regulation 23.

(b) No owner or agent of a mine shall transfer, discharge or dismiss the manager of the mine unless—

(i) the manager of the mine has been relieved by a duly qualified person, as is required by regulation 23; or

(ii) he has given due written notice of such transfer, discharge or dismissal to the manager of the mine at least one month before the day on which the manager is required to vacate his office:

Provided that nothing in sub-regulation (3) shall confer on the owner, agent or manager of the mine the right to authorise during such period of such notice, any person not duly qualified to manage the mine under regulation 23 to act as the manager of the mine unless

by reason of illness or other cause over which the Manager has no control or with the previous written permission of the Chief Inspector under such conditions as he may specify:

Provided further that the Chief Inspector shall not permit any such authorisation for a period exceeding sixty days from the date on which the mine is worked without a manager duly qualified under regulation 23.

- (c) A copy of every such notice or authorisation shall forthwith be sent to the Chief Inspector and to the Inspector by registered post; and
- (5) Except as provided in this regulation no mine shall be worked unless it is in the charge of a qualified manager as required under regulation 23".

[No. I.C.M.R/AM(1).]

[No. M.45(7)54.]

P. D. COMMAR, Under Secy.

*New Delhi, the 22nd June 1956*

**S.R.O. 1509.**—Shri P. N. Natu, Administrative Officer of the Calcutta Dock Labour Board, relinquished charge of the post with effect from the forenoon of the 1st June 1956.

[No. Fac.74(77)(i)/56.]

**S.R.O. 1510.**—In pursuance of the provisions of sub-clause (1) of clause 5 of the Calcutta Dock Workers (Regulation of Employment) Scheme, 1951, the Central Government hereby appoints Dr. R. M. Ray, Officer on Special Duty under the Calcutta Dock Labour Board, as Administrative Officer until further orders, *vice* Shri P. N. Natu, who relinquished charge with effect from the forenoon of 1st June 1956.

[No. Fac.74(77)(ii)/56.]

B. R. KHANNA, Under Secy.

### MINISTRY OF INFORMATION AND BROADCASTING

*New Delhi, the 25th June 1956*

**S.R.O. 1511.**—In pursuance of sub-rule (1) of rule 48 of order XXI of the First Schedule to the Code of Civil Procedure, 1908 (V of 1908), the Central Government hereby appoints the officers specified in column 1 of the table below as officers to whom notices of orders attaching the salaries and allowances of the officers specified in the corresponding entries in column 2 of the said table shall be sent:—

TABLE

Officers to whom notices should be sent	Officers whose salaries and allowances are attached
1	2

*Ministry of Information and Broadcasting (Sectt.)*

The Accountant General, Central Revenues, New Delhi.      Gazetted Officers in the Ministry of Information and Broadcasting (Sectt.).

The Under Secretary (Admn.) Ministry of Information and Broadcasting, New Delhi.      Non-Gazetted Officers in the Ministry of Information and Broadcasting (Sectt.).

*Press Information Bureau*

The Accountant General, Central Revenues, New Delhi.	Gazetted Officers of the Press Information Bureau, New Delhi, and its Regional Offices at various places except at Bombay Calcutta, Jullundur and Madras.
The Accountant General, Bombay, Madras, Punjab and West Bengal.	Gazetted officers of the Regional Offices of Press Information Bureau at Bombay Madras, Jullundur and Calcutta respectively.
The Administrative Officer, Press Information Bureau, New Delhi.	Non-gazetted Officers of the Press Information Bureau, New Delhi, and its Regional Offices.

*Publications Division, Delhi*

The Accountant General, Central Revenues, New Delhi.	Gazetted Officers of the Publications Division, Delhi.
The Administrative Officer, Publications Division, Delhi.	Non-Gazetted Officers of the Publications Division, Delhi.

*Directorate of advertising and visual Publicity*

The Accountant General, Central Revenues, New Delhi.	Gazetted Officers of the Directorate of Advertising and Visual Publicity, New Delhi.
The Director of Advertising and Visual Publicity, New Delhi.	Non-gazetted Officers of the Directorate of Advertising and Visual Publicity, New Delhi.

*Films Division*

The Accountant General, Bombay . . . .	Gazetted Officers of the Films Division.
The Assistant Accounts Officer, (Admin.) Films Division, Bombay.	Non-Gazetted Officers of the Films Division.

*Central Board of Film Censors*

The Accountant General, Bombay . . . .	Gazetted Officers in the offices of Central Board of Film Censors at Bombay, Madras and Calcutta.
The Secretary to the Chairman, Central Board of Film Censors, Bombay.	Non-Gazetted officers in the offices of the Central Board of Film Censors at Bombay, Madras and Calcutta.

*Research and Reference Division*

The Accountant General, Central Revenues, New Delhi.	Gazetted Officers of the Research and Reference Division, New Delhi.
The Deputy Director, Research and Reference Division, New Delhi.	Non-Gazetted Officers of the Research and Reference Division, New Delhi.

*Mobile units, Five year Plan Publicity*

1. The Accountant General Central Revenues, New Delhi.
2. The Comptroller, Madhya Bharat, Gwalior.
3. The Accountant General, Hyderabad.
4. The Accountant General, Uttar Pradesh, Allahabad.
5. The Accountant General, Bombay.
6. The Accountant General, West Bengal Calcutta and
7. The Accountant General, Madras.

The Regional Officers, Five Year Plan Publicity at New Delhi, Indore, Hyderabad, Allahabad, Baroda, Burdwan and Coimbatore.

Gazetted Officers at the Regional Offices of the Mobile Units, Five Year Plan Publicity, at New Delhi, Indore, Hyderabad, Allahabad, Baroda, Burdwan and Coimbatore respectively.

Non-gazetted staff of the Mobile Units in the North-West, Mid-West, Central, North, West, East and South Regions respectively.

[No. 19/1/56-Adm.]

R. K. GOVIL, Under Secy.

**ORDER**

*New Delhi, the 23rd June, 1956*

**S.R.O. 1512.**—In pursuance of clause 2 of the directions issued under the provisions of each of the enactments specified in the First schedule to the order of Government of India in the Ministry of Information and Broadcasting No. S.R.O. 945 dated the 28th April, 1955 the Central Government with previous approval of the Film Advisory Board, Bombay hereby certifies film specified in column 2 of the schedule hereto annexed, in all its language versions, to be of the description specified against it in the corresponding entry of column 5 of the said schedule.

**SCHEDULE**

S. No.	Title of the Film	Name of the Producer	Source of Supply	Whether a scientific film or a film intended for educational purposes or a film dealing with news and current events or a documentary film
1.	Indian News Review No. 401.	Government of India, Films Division, Bombay.	Government of India, Films Division, Bombay.	Film dealing with news and current events.

[No. 14/2/56-FD; App.89.]  
D. R. KHANNA, Under Secy.

**MINISTRY OF TRANSPORT**

(Transport Wing)

*New Delhi, the 20th June 1956*

**PORTS**

**S.R.O. 1513.**—In exercise of the powers conferred by sub-section (3) of section 3 of the Indian Ports Act, 1908 (XV of 1908), the Central Government are pleased to authorise Shri V. O. Michael a Senior Lascar of the Pilotage establishment at the Port of Cochin to pilot country craft at the port with effect from the 20th June, 1956.

[No. 5-PII(61)/56.]

*New Delhi, the 22nd June, 1956*  
MERCHANT SHIPPING

**S.R.O. 1514.**—In pursuance of clause (b) of sub-section (1) of section 213B of the Indian Merchant Shipping Act, 1923 (21 of 1923), the Central Government hereby declares that the French Government have extended to the under-mentioned Overseas French Territories, the Load Line Convention, as defined in clause (c) of section 213-A of the said Act, that is to say, the Convention signed

in London on the fifth day of July, nineteen hundred and thirty, for promoting safety of life and property at sea, as amended from time to time:—

*French Overseas Territories.*

Comoro Islands.

French Equatorial Africa.

French Possessions in Oceania.

French Somaliland.

French West Africa.

Madagascar and Dependencies.

New Caledonia and Dependencies.

Saint Pierre et Miquelon.

Trust Territories of Togoland Cameroons.

Wallis and Fortune Islands.

[No. 42-MA(5)/56.]

*New Delhi, the 25th June, 1956.*

**S.R.O. 1515.**—In exercise of the powers conferred by sub-section (1) of section 6 of the Indian Ports Act, 1908 (15 of 1908), the Central Government hereby makes the following amendment to the Kandla Port Rules, 1955, the same having been previously published as required by sub-section (2) of the said section, namely:—

In the said rules, for rule 42, the following rule shall be substituted, namely:—

“42. All vessels within the port shall lie entirely at the risk of their respective masters or owners who shall also be held responsible for any loss or damage that may arise as a consequence of faulty navigation or by reason of the vessels breaking adrift from their anchors or moorings.”

[No. 3-PII(78)/54.]

*New Delhi, the 26th June 1956*

(MERCHANT SHIPPING)

**S.R.O. 1516.**—In exercise of the powers conferred by section 21 of the Indian Merchant Shipping Act, 1923 (XXI of 1923), the Central Government hereby makes the following further amendments in the rules for the examination of and grant of certificates of competency to engine-drivers of sea-going steamships having engines of under 50 nominal horse power and engine-drivers of sea-going motorships having engines of under 282 brake horse power, published with the notification of the Government of India in the Ministry of Transport, No. SRO. 869, dated the 24th April, 1953, namely:—

In the said rules—

1. In sub-rule (2) of rule 1, for the words ‘Calcutta, Bombay and Madras’, the words ‘Calcutta, Bombay, Madras, Visakhapatnam and Cochin’ shall be substituted.
2. In rule 2—
  - (a) for the words ‘Principal Officer, Mercantile Marine Department, at Bombay, Calcutta and Madras’, the words ‘Principal Officer, Mercantile Marine Department, at Bombay, Calcutta, Madras and the Surveyor-in-charge, Mercantile Marine Department, Visakhapatnam and Cochin’ shall be substituted;
  - (b) after the words ‘Principal Officer’ in the penultimate line, the words ‘or the Surveyor-in-charge’ shall be inserted.
3. In sub-rule (1) of rule 14 after the words ‘Principal Officer’ the words ‘or the Surveyor-in-charge’ shall be inserted.

[No. 67-MA(7)/56.]

**CORRIGENDUM**

*New Delhi, the 26th June, 1956.*

**S.R.O. 1517.**—In the Ministry of Transport notification No. 3-PII(78)/54, dated the 1st October 1955, published in the Gazette of India, Part II Section 3, dated the 1st October 1955 as S.R.O. 2143, on page 1962, in Schedule B under “signals from vessels” against “on foremast head” for the existing mark read “GdW”.

[No. 3-PII(78)/54.]

D. A. R. WARRIOR, Under Secy.

## MINISTRY OF TRANSPORT

## (Transport Wing)

New Delhi, the 20th June 1956

**S.R.O. 1518.**—The following draft of the Indian Merchant Shipping (Construction and Survey of Passenger Steamers) Rules, 1955, which it is proposed to make in exercise of the powers conferred by section 145 of the Indian Merchant Shipping Act, 1923 (XXI of 1923) is published, as required by the said section, for the information of all persons likely to be affected thereby and notice is hereby given that the draft will be taken into consideration on or after the 20th July, 1956.

Any objection or suggestion which may be received from any person with respect to the said draft before the date so specified will be considered by the Central Government.

## DRAFT RULES

## PART I—GENERAL

## PRELIMINARY

1. (i) These rules may be called the Indian Merchant Shipping (Construction and Survey of Passenger Steamers) Rules, 1956.

(ii) These rules shall apply to all steamships for which a certificate of survey is required under the Indian Merchant Shipping Act, 1923 (XXI of 1923). Provided that the Central Government may exempt any ship the keel of which was laid before the date on which these rules come into operation, not being a ship converted on or after that date for service as a passenger steamer, from the requirements of these rules to the extent that it is satisfied that compliance therewith is unreasonable or impracticable in the circumstances.

(iii) Except where otherwise provided the provision of these rules relating to steam ships apply equally to ships propelled by Electricity or other Mechanical power.

2. Every steamship for which an application is made for the issue of a certificate of survey or a Safety Certificate shall be surveyed by a surveyor or surveyors to his or their satisfaction before a declaration of survey is granted.

3. The survey of steamships shall be conducted at the Ports of Calcutta, Bombay, Madras, Visakhapatnam, Cochin, Tuticorin, Mandapam and at such other ports as the Central Government may appoint to be ports of survey.

4. (i) The survey shall be arranged on the application of the owner or master or agent.

(ii) Every application shall be accompanied by a fee calculated on the tonnage of the steamship, in accordance with the rates specified in the Sixth Schedule to these rules.

(iii) The application shall be lodged between the hours of 10 a.m. and 5 p.m. on any day except Sundays and holidays, and not later than 72 hours before the hour at which it is desired that the survey shall commence. At the ports of Calcutta, Bombay and Madras the application shall be lodged at the office of the Principal Officer, Mercantile Marine Department; for the port of Tuticorin, Visakhapatnam, Cochin and Mandapam at the office of the Principal Officer, Mercantile Marine Department, Madras, and at other ports of survey, at the office of the Port Officer concerned.

5. The application for Survey shall be accompanied by such plans of the steamship as the Central Government may require. The plans shall contain such information as is necessary for the full consideration of the strength of the ship and the proposals for complying with the requirements of these rules.

6. (i) On receipt of the application for survey and of the survey fee the officer receiving the same shall deliver to the applicant a receipt for the fee so paid and an intimation that the application has been received.

(ii) On receipt of an application for the survey of a ship, other than a ship which is to be surveyed during construction, a list of the requisite preparations for the survey of the ship shall be supplied to the applicant.

7. On receipt of an application for survey a survey shall be made by the Surveyor or Surveyors on any day in the year, except a Sunday or a Government holiday, that is Bank Holiday (1st January), Republic day, Holi, Id-ul-Fitr, Independence day, Dussera, Mahatma Gandhi's Birthday, Diwali and Christmas Day:

Provided that, if circumstances admit and if so required by such application, a survey may be made on a Sunday or a Government holiday on payment of a fee of Rs. 100 in addition to such fees as may be payable in respect of the survey under these Rules.

8. (i) If the requisite preparations to enable the Surveyor to carry out the survey have not been made on the day and by the hour mentioned in the application for a survey, the Surveyor may fix some other date and hour for the survey.

(ii) If the Surveyor is unavoidably prevented for being present at the time fixed then the earliest possible information shall be sent to the applicant, and some other time convenient both to the applicant and to the Surveyor shall be fixed for the survey.

9. (i) Every steamship to which these Rules apply shall be subjected to the surveys specified below:—

(a) A survey before the ship is put in service.

(b) A periodical survey once every twelve months.

(c) Additional surveys, as occasion arises.

(ii) The surveys referred to above shall be carried out as follows:—

(a) The survey before the ship is put in service shall include a complete inspection of the hull, machinery and equipments, including the outside of the ship's bottom in dry dock and the inside and outside of the boilers. This survey shall be such as to ensure that the arrangements, material, scantlings of the hull, boilers, and their appurtenances, main and auxiliary machinery, life-saving appliances, fire appliances and other equipments fully comply with such of these rules as are applicable in her case. The survey shall also be such as to ensure that the workmanship of all parts of the ship and her equipments are in all respects satisfactory.

Provided that the bottom of the ship which has been surveyed during the construction need not be examined in dry dock after launching if it has been examined by a Surveyor before the ship is launched, unless he has special reasons for considering it necessary:

Provided further that the survey of a ship shall not be undertaken after the hull is complete, painted and cemented, without the sanction of the Central Government.

(b) The periodical survey shall include an inspection of the whole of the hull, boilers, machinery and equipments, including the outside of the ship's bottom in dry dock. The survey shall be such as to ensure that the ship, as regards the hull, boilers and their appurtenances, main and auxiliary machinery, life-saving appliances and other equipments, is in satisfactory condition and fit for the service for which she is intended, and that she complies with the requirements of such of these rules as are applicable in her case.

(c) A survey either general or partial, according to the circumstances, shall be made every time an accident occurs or a defect is discovered which affects the safety of the ship or its efficiency or completeness of her fire and life-saving appliances or other equipments, or whenever any important repairs or renewal are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory and that the ship is fit for the service for which she is intended.

10. After the survey of the ship as provided in clause (a) of the sub-rule (ii) of rule 10 of these rules has been completed no change shall be made in the structural arrangements, machinery, equipments, etc. covered by the survey, without the sanction of the Central Government.

11. If a surveyor finds that any defect exists in the hull, machinery or equipments of a steamship, he shall, before refusing to give a Declaration of Survey regarding the ship under section 134 of the Act, address a letter to the owner or master of the steamship pointing out such defect and the repairs, etc., necessary to make good the same. If the surveyor be subsequently informed by the owner or master of the steamship that the requisite repairs, etc., have been executed, he shall pay one or more extra visits to the steamship, as may be necessary, and thereafter may either give or refuse a declaration of survey, as he shall think proper.

12. A declaration of Survey shall not be granted for a steamship of which the outside of the hull and fittings have not been examined in dry dock during the twelve months preceding the date of survey and in no case shall such Declaration be granted for a period greater than twelve months from the date of the last outside examination of the hull and fittings, without the sanction of the Central Government.

13. The officer to whom a declaration of survey shall be sent in accordance with sub-section (i) of section 135 of the Act by the owner or master to whom it is given, shall be the Principal Officer, Mercantile Marine Department, at the ports of Calcutta, Bombay or Madras; the Principal Officer, Mercantile Marine Department, Madras, for the ports of Mandapam, Visakhapatnam, Cochin and Tuticorin and the Port Officer at other ports of survey.

14. The notice to be given to the owner or master of a steamship under subsection (3) of section 136 of the Act shall be given at the ports of Calcutta, Bombay and Madras by the Principal Officer, Mercantile Marine Department; at the port of Mandapam, Visakhapatnam, Cochin and Tuticorin by the Principal Officer, Mercantile Marine Department, Madras, and at other ports of survey by the Port Officer concerned.

15. (1) If during the currency of a valid Certificate of Survey granted in respect of a steamship by the United Kingdom Ministry of Transport, or by any British Colonial Government, or by any Government whose certificates of survey are accepted under the provisions of the Indian Merchant Shipping Act, 1923 (XXI of 1923), and application is made by the owner or master thereof to carry passengers in addition to the number prescribed by the said certificate, the survey of the ship shall consist only of the survey of such parts as are concerned in the carriage of additional passengers.

(2) The fee payable for a survey of the nature referred to in sub-rule (1) of this rule shall be Rs. 48.

16. (1) If a visit from a surveyor is necessary while a certificate of survey or a safety certificate is in force, a fee at the rate of Rs. 48 shall be payable for every visit that the surveyor makes.

(2) The fee for an intermediate survey for a Docking Certificate made at the owner's request of a steamship holding a safety certificate or a certificate of survey issued by the Central Government, the United Kingdom Ministry of Transport or British Colonial Government shall be Rs. 64. This fee shall be for the complete survey for a Docking Certificate and not per visit.

17. Overtime fees shall be charged in respect of surveys or inspection, wholly or partially carried out between the hours of 5 p.m. and 7 a.m. in accordance with the rates specified in the Sixth Schedule to these rules.

18. All correspondence relating to the survey of steamships shall be addressed as follows:—

(a) At the ports of Calcutta, Bombay and Madras To the Principal Officer, Mercantile Marine Deptt.

(b) For the ports of Cochin, Visakhapatnam, Mandapam and Tuticorin. To the Principal Officer, Mercantile Marine Deptt., Madras.

(c) At other ports of survey. To the Port Officer concerned.

## DEFINITIONS AND INTERPRETATION

19. In these rules, unless the context otherwise requires, the following expressions have the meanings hereby respectively assigned to them:—

“the Act” means the Indian Merchant Shipping Act, 1923 (XXI of 1923);

“Approved” means approved by the Central Government;

“Berthed passenger” means a passenger accommodated in a compartment containing not more than six berths;

“load line rules” means the Indian Merchant Shipping (Load Line) Rules, 1934;

“motor ship” means a ship propelled by internal combustion engines;

“surveyor” means a surveyor appointed under section 129 of the Act;

“‘A’ class division” means a bulkhead or part of a deck, in either case complying with such of the requirements of Rule 59 of these rules as are expressed to apply to “A” class divisions;

“accommodation space” includes:—

(a) passenger space,

(b) crew space,

(c) offices,

(d) pantries, and

(e) space similar to any of the foregoing, not being service spaces or open spaces on deck;

“‘B’ Class Division” means a bulkhead complying with such of the requirements of Rule 59 of these Rules as are expressed to apply to ‘B’ class divisions;

“Breadth of the Ship” means the greatest moulded breadth at or below the ship’s deepest sub-division load water line;

“bulkhead deck” means the uppermost deck upto which transverse watertight bulkheads are carried;

“cargo space” in part V of these Rules means space appropriated for cargo, other than mail and bullion, and trunks loading to such spaces;

“control station” includes:—

(a) a radiotelegraph room;

(b) any other enclosed space which houses

(i) a compass, direction-finder, radar equipment, a steering wheel or other similar equipment used in navigation;

(ii) a central indicator connected with a system for the detection of fire or smoke; or

(iii) an emergency generator.

“crew space” means crew accommodation provided exclusively for the use of the crew.

“criterion numeral” in relation to any ship means the criterion numeral of the ship determined in accordance with such of the provisions of the First Schedule to these Rules as apply to that ship.

“draught” means the vertical distance from the moulded base line amidships to a sub-division load water line.

“factor of sub-division” in relation to any ship or portion thereof means the factor of sub-division determined in accordance with such of the provision of the First Schedule to these Rules as apply to that ship or portion as the case may be.

“floodable length” in relation to any portion of a ship at any draught means the maximum length of that portion having its centre at a given point in the ship which, at that draught and under such of the assumptions of permeability set forth in the first schedule to these Rules as are applicable in the circumstances can be flooded without submerging any part of the ship’s margin line when the ship has no list.

“incombustible material” means material which when heated to a temperature of 1382°F (750°C) neither burns nor gives off inflammable vapours in sufficient quantity to ignite at a pilot-flame, and the expression “combustible material” shall be construed accordingly.

"independent power pump" means a pump operated by power otherwise than from the ship's main engine;

"length" in relation to ship means the length of a ship measured between perpendiculars taken at the extremities of the deepest sub-division load water line;

"machinery space" in parts V and V(A) of these Rules includes space in which propelling or refrigerating machinery, boilers, pumps, engineers' workshops, generators, ventilation or air conditioning machinery, or oil filling stations are situated, and trunkways leading to such spaces.

"machinery space" in every Part of these rules, other than Parts V and V(A), means space extending from the moulded baseline of the ship to the margin line and between the extreme transverse watertight bulkheads bounding the spaces appropriated to the main and auxiliary propelling machinery, boilers, if any, and the permanent coal bunkers, if any;

"main circulating pump" means the pump installed for circulating water through the main condenser;

"main vertical zones" means the main vertical zones into which the hull, superstructure and deckhouses of a ship are divided in accordance with paragraph (2) of rule 60 of these rules;

"margin line" means a line drawn at least 3 inches below the upper surface of the bulkhead deck at the side of a ship and assumed for the purpose of determining the floodable length of the ship;

"mile" means a nautical mile of 6,080 feet or 1,852 metres;

"passenger space" means space provided for the use of passengers;

"permeability" in relation to a space means the percentage of that space below the ship's margin line which, on the assumption that it is in use for the purpose for which it is appropriated, can be occupied by water;

"public rooms" includes halls, dining rooms, bars, smoke rooms, lounges, recreation rooms, nurseries and libraries;

"radiotelegraph room" has the same meaning as in the Indian Merchant Shipping (Radio) Rules, 1956;

"Service space" includes galleys, main pantries, laundries, store rooms, paint rooms, baggage rooms, mail rooms, bullion rooms, carpenters' and plumbers' workshops, and trunkways leading to such spaces;

"Standard Fire test" means a test which develops in a test furnace a series of time-temperature relationships as follows:—

At the end of the first 5 minutes 1000°F (538°C)

At the end of the first 10 minutes 1300°F (704°C)

At the end of the first 30 minutes 1550°F (843°C)

At the end of the first 60 minutes 1700°F (927°C)

"steamer" includes a ship propelled by electricity or other mechanical power;

"unberthed passenger":—Steerage passengers are all passengers who are not cabin passengers and persons should not be deemed cabin passengers unless the space allotted to their exclusive use is in the proportion of at least 36 superficial feet to each statute adult.

"sub-division load line" means load lines indicating the depth to which a steamer can be loaded having regard to the extent to which she is subdivided and to the space for the time being allotted to passengers;

"sub-division load water line" means the water line assumed in determining the sub-division of the ship in accordance with these Rules;

"watertight" in relation to a structure means capable of preventing the passage of water through the structure in any direction under a head of water up to the ship's margin line;

"weathertight" in relation to a structure means capable of preventing the passage of sea water through the structure in ordinary sea conditions.

## CLASSIFICATION OF SHIPS

20. (i) For the purpose of these Rules Passenger ships shall be arranged in classes as follows:—

- Class I Passenger steamers engaged on long international voyages.
- Class II Passenger steamers engaged on short international voyages.
- Class III Unberthed passenger steamers engaged on international voyages.
- Class IV Unberthed passenger steamers engaged on short international voyages.
- Class V Passenger ships, being steam ships other than ships of Class I to IV inclusive engaged on voyages between ports in India, or between any port in India and any port or place in the Island of Ceylon.
- Class VI Passenger ships, being steamships other than ships of Class V engaged on voyages between ports situated in India or between any port in India and any port or place in the Island of Ceylon in the course of which they do not go more than 20 miles from the nearest land.

(ii) For the purposes of this Rule the following expressions have the meanings hereby respectively assigned to them, that is to say:—

“International voyage” means a voyage from the one country to which the International Convention for the Safety of Life at Sea, 1948, applies to a port outside such country or conversely: and for this purpose every territory for the international relations of which a contracting Government is responsible or of which the United Nations are the administering authority is regarded as a separate country.

“Short international voyage” means an international voyage in the course of which a ship is not more than 200 miles from a port or place in which the passengers and crew could be placed in safety and which does not exceed 600 miles in length between the last port of call in the country in which the voyage begins and the final port of destination. Notwithstanding anything contained above, Portuguese enclaves situated on the coast line of India shall for the purpose of the above rule be considered as part of India.

## STRUCTURAL STRENGTH

21. The structural strength of every ship to which these Rules apply shall be sufficient for the service for which the ship is intended.

## PART II—WATERTIGHT SUB-DIVISION

## APPLICATION OF PART II

22. This part of the Rules applies to every ship to which these Rules apply.

## Watertight Subdivision

23. Every ship to which this Part applies shall be subdivided by bulkheads which shall be watertight up to the bulkhead deck, into compartments the maximum length of which shall be calculated in accordance with such of the provisions of the first Schedule to these Rules as apply to that ship. Every other portion of the internal structure which affects the efficiency of the subdivision of the ship shall be watertight, and shall be of a design which will maintain the integrity of the subdivision.

## Peak and Machinery space bulkheads, shaft tunnels, etc.

24. (1) Every ship to which this Part applies shall be provided with a collision bulkhead which shall be watertight up to the bulkhead deck and shall be fitted at a distance from the ship's forward perpendicular of not less 5 per cent. of the length of the ship and not more than 10 feet plus 5 per cent. of such length. If the ship has a forward superstructure, the collision bulkhead shall be extended weathertight to the deck next above the bulkhead deck. The extension shall be fitted directly over the collision bulkhead below unless it is at least 5 per cent. of the length of the ship from the forward perpendicular and the part of the bulkhead deck which forms the step is made weathertight. The plating and stiffeners of such extension shall be constructed in accordance with the provision of the Third Schedule to these Rules as if the extension formed part of a bulkhead immediately below the bulkhead deck.

(2) Every such ship shall be provided with a watertight afterpeak bulkhead and with watertight bulkheads dividing the space appropriated to the main and auxiliary propelling machinery, boilers, if any, and the permanent, coal bunkers, if any, from other spaces. Such bulkheads shall be watertight up to the bulkhead deck. Provided that the afterpeak bulkhead may be stopped below the bulkhead deck if the safety of the ship is not thereby impaired.

(3) The stern gland of every such ship shall be situated in a watertight shaft tunnel or other watertight space separate from the stern tube compartment and of such a volume that if the tunnel or space is flooded the margin line will not be submerged. The stern tube shall be enclosed in a watertight compartment the volume of which shall be the smallest compatible with the proper design of the ship.

#### *Double Bottoms*

25. (1) Subject to the provisions of this rule every ship to which these Rules apply shall be fitted with watertight double bottoms which shall be at least of the following extent.

- (a) in ships of 200 feet but less than 249 feet in length; from the machinery space to the collision bulkhead or as near to that bulkhead as is practicable;
- (b) in ships of 249 feet but less than 330 feet in length from the collision bulkhead to the afterpeak bulkhead or as near to those bulkheads as is practicable, but not necessarily in the machinery space;
- (c) in ships of 330 feet in length and upwards; from the collision bulkhead to the afterpeak bulkhead or as near to those bulkheads as is practicable.

(2) When a double bottom is required by this rule to be fitted in a ship, the inner bottom shall be continued out to the ship's sides in such a manner as to protect the bottom to the turn of the bilge. The inner bottom shall be deemed to be adequate for this purpose if the line of intersection of the outer edge of the margin plate with the bilge plating is not lower at any point than a horizontal plane passing through the point of intersection with the frame line amidships of a transverse diagonal line inclined at 25 degrees to the base line and cutting it a point one-half of the ship's moulded breadth from the middle line.

(3) Wells constructed in the double bottom for the purpose of drainage shall not be larger or extended downwards more than is necessary for such purpose and shall not be less than 18 inches from the outer bottom or from the inner edge of the margin plate. Provided that a well extending to the outer bottom may be constructed at the after and of a shaft tunnel.

(4) Wells for purposes other than drainage shall not be constructed in the double bottom. The Central Government may exempt any ship from the requirements of this paragraph in respect of any well which it is satisfied will not diminish the protection given by the double bottom.

(5) Nothing in this rule shall require a double bottom to be fitted in way of watertight compartments used exclusively for the carriage of liquids, if the safety of the ship will not be impaired in the event of bottom or side damage by reason of the absence of a double bottom in that position.

(6) The Central Government may exempt any ship of Class II from the requirements of a double bottom in any portion of the ship which is subdivided by application of a factor of subdivision not exceeding 5, if it is satisfied that the fitting of a double bottom in that portion of the ship would not be compatible with the design and proper working of the ship.

#### *Stability in damaged condition*

26. (1) Every ship to which this Part applies shall be so constructed as to provide sufficient intact stability in all service conditions to enable the ship to withstand the final flooding of any one of the main compartments into which the ship is subdivided in accordance with the provisions of Rule 23 of these Rules. If two of the main compartments being adjacent to each other, are separated by a bulkhead which is stepped, the intact stability shall be adequate to withstand the final flooding of those compartments. If the ship's factor of

subdivision is .5 or less the intact stability shall be adequate to withstand the final flooding of any two of the main compartments which are adjacent to each other.

(2) For the purposes of this rule, the sufficiency of the intact stability of every such ship shall be determined in accordance with the provisions of the Second Schedule to these Rules.

(3) (a) Every ship to which this Part of these Rules applies shall be so constructed as to keep unsymmetrical flooding when the ship is in a damaged condition at the minimum consistent with efficient arrangements. If crossflooding fittings are provided in any such ship the fittings and the maximum heel of the ship before equalisation shall be such as will not endanger the safety of the ship.

(b) If the margin line may become submerged during the flooding assumed for the purposes of the calculation referred to the Second Schedule to these Rules, the construction of the ship shall be such as will enable the Master of the ship to ensure—

- (i) that the maximum angle of heel during any stage of such flooding will not be such as will endanger the safety of the ship; and
- (ii) that the margin line will not be submerged in the final stage of flooding.

(4) (a) There shall be provided in every such ship a document for the use of the Master of the ship containing information as to the use of any cross-flooding fittings provided in the ship.

(b) There shall be provided in every ship of Classes I to VI a document for the use of the Master of the ship containing the following additional information:—

- (i) Information necessary for the maintenance of sufficient intact stability under service conditions to enable the ship to withstand damage to the extent referred to in the First Schedule to these Rules; and
- (ii) Information as to the condition of stability of which the calculations of heel have been based, together with the information that excessive heeling might result should the ship sustain damage when in a less favourable condition.

#### *Construction of Watertight Bulkheads etc.*

27. (1) In every ship to which this Part applies every portion of the ship required by these Rules to be watertight shall be constructed in accordance with such of the requirements of the Third Schedule to these Rules as apply to it.

(2) In every such ship all tanks forming part of the structure of the ship and used for the storage of oil fuel or other liquids including double bottoms, peak tanks, settling tanks and bunkers, shall be of a design and construction adequate for that purpose.

#### *Openings in Watertight Bulkheads, etc.*

28. (1) In every ship of Classes I to VI inclusive, the number of openings in bulkheads and other structures required by these Rules to be watertight shall be the minimum compatible with the design and proper working of the ship.

(2) So far as practicable, trunks installed in connection with ventilation, forced draught or refrigeration systems in any such ship shall not pierce such bulkheads or structures.

(3) Every tunnel above the double bottom, if any, in such a ship whether for access from the crew space to the machinery space, for piping or for any other purpose, which passes through such a bulkhead shall be watertight. The means of access to at least one end of such tunnel, if it may be used as a passage at sea, shall be through a trunkway extending watertight to a height sufficient to permit access above the margin line. The means of access to the other end of the tunnel shall be through a watertight door. No tunnel shall extend through the first subdivision bulkhead abaft the collision bulkhead.

(4) Not more than one doorway (other than a bunker or tunnel doorway) shall pierce such a bulkhead in the machinery space in any such ship. If any such bulkhead is pierced by a doorway the doorway shall be placed so as to have the sill as high as possible in the ship.

(5) Doorways, manholes and access openings shall not be fitted in the collision bulkhead below the margin line of any such ship or in any other bulkhead which is required by these Rules to be watertight and which divides a cargo space from another cargo space or from a permanent or reserve bunker. Provided that the Central Government may permit any such ship to be fitted with doorways in bulkheads dividing two between deck cargo spaces if it is satisfied that—

- (i) the doorways are necessary for the proper working of the ship;
- (ii) the number of such doorways in the ship is the minimum compatible with the design and proper working of the ship, and they are fitted at the highest practicable level; and
- (iii) the outboard vertical edges of such doorways are situated at a distance from the ship's shell plating which is not less than one-fifth of the breadth of the ship, such distance being measured at right angles to the centre line of the ship at the level of the deepest sub-division load water line.

(6) In every ship of Classes I to VI inclusive, bulkheads outside the machinery space which are required by these Rules to be watertight shall not be pierced by openings which are capable of being closed by portable bolted plates.

(7) In every ship to which this Part applies—

- (a) (i) valves and cocks not forming part of a pipe system shall not be fitted in any bulkhead required by these Rules to be watertight;
- (ii) if any such bulkhead is pierced by pipes, scuppers, electric cables or other similar fittings, provision shall be made which will ensure that the watertightness of the bulkhead is not thereby impaired.
- (b) The collision bulkhead of such a ship shall not be pierced below the margin line by more than one pipe. Provided that if the forepeak in such a ship is divided to hold two different kinds of liquids, the collision bulkhead may be pierced below the margin line by not more than two pipes. Any pipe which pierces the collision bulkhead of such a ship shall be fitted with a screw-down valve capable of being operated from above the bulkhead deck, the valve chest being secured to the forward side of the collision bulkhead.

*Means of Closing Openings Watertight Bulkheads, etc.*

29. (1) In every ship of Classes I to VI inclusive, efficient means shall be provided for closing and making watertight all openings in bulkheads and other structures required by these rules to be watertight.

(2) Every door fitted to any such opening shall be a sliding watertight door. Provided that in a ship of Class I or in any ship of Class II, which is not required by paragraph 9 of the First Schedule to these Rules to have a factor of sub-division of :5 or less, hinged watertight doors may be fitted—

- (a) In passenger, crew and working spaces above any deck the underside of which at its lowest point is at least 7 feet above the deepest sub-division load water line; and
- (b) In any such bulkhead, not being a collision bulkhead, which divides two cargo between deck spaces.

(3) Every such hinged watertight door shall be fitted with catches capable of being worked from each side of the bulkhead in which the door is fitted.

(4) All doors required by these rules to be watertight shall be secured by means other than bolts, and shall be closed by means other than gravity or a dropping weight.

(5) In every ship of Classes I to VI inclusive, watertight doors fitted in bulkheads between permanent and reserve bunkers, other than the doors referred to in paragraph (4) of rule 28 of these rules shall always be accessible.

*Means of Operating Sliding Watertight Doors*

30. (1) If, in any ship of Class I or a ship of Class II not required by paragraph 9 of the First Schedule to these Rules to have a factor of subdivision or :5 or less any sliding watertight door fitted in a bulkhead (other than a door

at the entrance to a tunnel) is in a position which may require it to be opened at sea and the sill thereof is below the deepest subdivision load water line, the following requirements shall apply—

- (a) If the number of such doors exceeds five, all such doors and all tunnel doors shall be operated by power and shall be capable of being simultaneously closed from a central control situated on the bridge;
- (b) If the number of such doors does not exceed five:—
  - (i) if the criterion numeral of the ship does not exceed 30 such doors and tunnel doors shall not be required to be operated by power;
  - (ii) if the criterion numeral of the ship exceeds 30, all such doors and all tunnel doors shall be operated by power and shall be capable of being simultaneously closed from a central control situated on the bridge. Provided that, if there is only one such door and one tunnel door in the ship, both of which are in the machinery space, they shall not be required to be operated by power.

(2) In every ship of Class II required by paragraph 9 of the First Schedule to these Rules to have a factor of subdivision not exceeding 5, all sliding watertight doors shall be operated by power and shall be capable of being simultaneously closed from a central control situated on the bridge. Provided that, if in any such ship there is only one such door and it is in the machinery space, it shall not be required to be operated by power.

(3) In every ship of Class III to VI inclusive, when any watertight doors which may be sometimes opened at sea excluding the tunnel door the sill of which is below the deepest subdivision load line, the following rules shall apply—

- (a) When the number of such doors exceeds five all watertight doors shall be operated by power and shall be capable of being closed simultaneously from a central control situated on the bridge.
- (b) When the number of doors exceeds 3 and does not exceed 5:
  - (i) if the criterion numeral does not exceed 30 all the watertight doors may be hand-operated.
  - (ii) if the criterion numeral exceeds 30, all watertight doors shall be operated by power.
- (c) When the number of doors does not exceed 3:
  - (i) if the criterion numeral does not exceed 65, all watertight doors may be operated by hand only;
  - (ii) if the criterion numeral exceeds 65, all watertight doors shall be operated by power.

(4) If, in any ship of Classes I to V inclusive, any sliding watertight doors which may be opened at sea for the purpose of trimming coal are fitted between bunkers in the between deck below the bulkhead deck, such doors shall be operated by power.

(5) If, in any ship of Classes I to V inclusive, a trunkway, being part of a refrigeration, ventilation, or forced draught system, is carried through more than one transverse watertight bulkhead and the sills of the openings of such trunkways are less than 7 feet above the deepest subdivision load water line, the sliding watertight doors at such openings shall be operated by power.

(6) If a sliding watertight door is required by these Rules to be operated by power from a central control, the power system shall be so arranged that the door can also be operated by power at the door itself. The arrangements shall be such that the door will close automatically if opened at the door itself after being closed from the central control, and will be capable of being kept closed at the door itself notwithstanding that an attempt may be made to open it from the central control. Handles for controlling the power system shall be provided at both sides of the bulkhead in which the door is situated and shall be so arranged that any person passing through the doorway is able to hold both handles in the open position simultaneously.

(7) In every ship of Classes I to V inclusive, there shall be at least two sources of power for opening and closing all sliding watertight doors which are required by these Rules to be operated by power, and each power unit shall be sufficient to operate simultaneously all such doors in the ship. An indicator shall be fitted at the central control to show whether sufficient power is available for such

purposes. Any fluid used for the purpose of operating such doors shall be incapable of freezing at the temperatures likely to be encountered on the voyages on which the ship is engaged.

(8) In every such ship every sliding watertight door which is operated by power shall be provided with efficient hand-operating gear which can be operated both at the door itself and at an accessible position above the bulkhead deck. At the position above the bulkhead deck the hand-operating gear shall be operated with an all-round crank motion.

(9) In every such ship if a sliding watertight door is not required to be operated by power, it shall be provided with efficient hand-operating gear with an all-round crank motion, both at the door itself and at an accessible position above the bulkhead deck.

(10) In every such ship the hand-operating gear for operating the sliding watertight door in the machinery space from above the bulkhead deck shall be placed outside the machinery space unless such a position is inconsistent with the efficient arrangement of the necessary gearing.

#### *Watertight Doors: Signals and Communications*

31. (1) Every sliding watertight door fitted in a ship of Class I to VI inclusive shall be connected with an indicator at each position from which the door may be closed, other than at the door itself, showing whether the door is open or closed.

(2) There shall be provided in connection with every such door which is operated by power a means of giving an audible warning at the door itself when the door is about to be closed. The arrangement shall be such that one movement at the position from which the door is about to be closed will be sufficient to sound the signal and to close the door, the signal preceding the movement of the door by an interval sufficient to allow the movement of persons and articles away from the door.

(3) If any door required by these rules to be watertight is not capable of being operated from a central control, means of communication by telegraph, telephone or otherwise shall be provided whereby the officer of the watch may communicate with the person responsible for the closing of the door.

#### *Construction of Watertight Doors*

32. (1) Every door required by these Rules to be watertight shall be of such design, material and construction as will maintain the integrity of the watertight bulkhead in which it is fitted.

Any such door giving direct access to any space which may contain bunker coal shall, together with its frame, be made of cast or mild steel. Any such door in any other position shall, together with its frame, be made of cast or mild steel or cast iron.

(2) Every sliding watertight door shall be fitted with rubbing faces of brass or similar material which may be fitted either on the door itself or on the door frame, and which, if they are of less than one inch in width shall be fitted in recesses.

(3) If screw gear is used for operating such a door, the screw shall work in a nut of suitable non-corrodible metal.

(4) The frame of every vertically sliding watertight door shall have no greeve at the bottom thereof in which dirt may lodge. The bottom of such a frame, if it is of skeleton form, shall be so arranged that dirt cannot lodge therein. The bottom edge of every such door shall be tapered or bevelled.

(5) Every vertically sliding watertight door which is operated by power shall be so designated and fitted that, if the power supply ceases, there shall be no danger of the door dropping.

(6) Every horizontally sliding watertight door shall be so installed as to prevent its moving if the ship rolls, and if necessary a clip or other suitable device shall be provided for that purpose. The device shall not interfere with the closing of the door when the door is required to be closed.

(7) The frame of every watertight door shall be properly fitted to the bulkhead in which the door is situated, and the jointing material between the frame and the bulkhead shall be of a type which will not deteriorate or be injured by heat.

(8) Every watertight door, being a coal-bunker door, shall be provided with screens or other devices to prevent coal from interfering with its closing.

*Openings in the Shell Plating below the Margin Line*

33. (1) In every ship to which this Part applies, the number of side scuttles, scuppers, sanitary discharges and other openings in the shell plating below the margin line shall be the minimum compatible with the design and proper working of the ship.

(2) The arrangements for closing each such opening below the margin line shall be consistent with its intended purpose and shall be such as will ensure watertightness.

(3) (a) In every ship of Classes I to V inclusive the number of side scuttles below the margin line which are capable of being opened shall be the minimum compatible with the requirements for the proper operation of the ship.

(b) If in a between decks of such a ship the sills of any side scuttles are below a line drawn parallel to the bulkhead deck at side and having its lowest point two and one-half per cent. of the breadth of the ship above the deepest sub-division load water line, every side scuttle in that between decks shall be of a non-opening type. If in a between decks of such a ship all the sills of the side scuttles are above the aforesaid line, every side scuttle in that between decks shall be either of a non-opening type or incapable of being opened except by a person authorised to do so by the master of the ship.

(4) In every ship of Class VI, to which this Part of these Rules applies all side scuttles below the margin line shall be of a non-opening type.

(5) In every ship to which this Part of these Rules applies, every side scuttle below the margin line shall be fitted with an efficient hinged deadlight permanently attached so that it can be readily and effectively closed and secured watertight. Provided that in ships of Classes I and II abaft a point one-eighth of the length of the ship from the forward perpendicular and above a line drawn parallel to the bulkhead deck at side and having its lowest point at a height of 12 feet plus two and one-half per cent. of the breadth of the ship above the ship's deepest sub-division load water line, deadlights may for the purposes of these Rules be portable in crew spaces and in passenger spaces not appropriated for the use of unberthed passengers.

(6) Side scuttles shall not be fitted below the margin line in any space in a ship to which this Part applies which is appropriated solely to the carriage of cargo or coal. If side scuttles are fitted in spaces below the margin line which may be appropriated to the carriage either of cargo or of passengers such side scuttles and their deadlights shall be so constructed as to be incapable of being opened except by a person authorised to do so by the master of the ship.

(7) Automatic ventilating side scuttles shall not be fitted below the margin line in the shell plating of any such ship.

(8) (a) In every ship to which this Part applies each inlet and discharge led through the shell plating below the margin line shall be fitted with efficient and readily accessible means for preventing the accidental admission of water into the ship.

(b) Without prejudice to the generality of the foregoing, each discharge led through the shell plating from spaces below the margin line, not being a discharge in connection with machinery, shall be provided with either—

(i) one automatic non-return valve fitted with a positive means by which it can be closed from a readily accessible position above the ship's bulkhead deck and with an indicator at the position from which the valve may be closed to show whether the valve is open or closed; or

(ii) two automatic non-return valves, the upper of which is so situated above the ship's deepest sub-division load water line as to be always accessible for examination under service conditions and if of a horizontal balanced type which is normally closed.

(c) Any valve fitted in compliance with the requirements of sub-paragraph (b) which is a geared valve, or the lower of two non-geared valves, shall be secured to the ship's shell plating.

(d) All cocks and valves attached to inlets or discharges, other than inlets or discharges connected with machinery, being cocks or valves fitted below the margin line or the failure of which may affect the sub-division of the ship, shall be made of steel, bronze or other equally efficient material.

(e) Main and auxiliary inlets and discharges connected with machinery shall be fitted with readily accessible cocks or valves between the pipes and the ship's shell plating or between the pipes and a fabricated box attached to the shell plating. Such cocks or valves of more than 3 inches bore attached to such inlets or discharges shall be made of steel, bronze or other equally efficient material. If made of steel such cocks and valves shall be protected against corrosion.

(f) Discharge pipes led through the shell plating below the margin line of any ship of Classes I to VI, inclusive, shall not be fitted in a direct line between the outboard opening and the connection with the deck, water closet or other similar fitting, but shall be arranged with bends or elbows of substantial metal other than cast iron or lead.

(g) All discharge pipes led through the shell plating below the margin line in such a ship and the valves relating thereto shall be protected from damage.

(h) All bolts connecting cocks, valves, discharge pipes and other similar equipment to the shell plating of such a ship below the margin line shall have their heads outside the shell plating, and shall be either countersunk or upheaded.

(i) Efficient means shall be provided for the drainage of all watertight decks below the margin line in such a ship and any drainage pipes shall be so fitted with valves or otherwise arranged as to avoid the danger of water passing from a damaged to an undamaged compartment.

(j) The inboard opening of every ash-shoot, rubbish-shoot and other similar shoot in such a ship shall be fitted with an efficient watertight cover, and, if such opening is below the margin line, it shall also be fitted with an automatic non-return valve in the shoot in a readily accessible position above the ship's deepest sub-division load water line. The valve shall be of horizontal balanced type, normally closed and provided with local means for securing it in a closed position. The requirements of this sub-rule shall not apply to ash ejectors and expellers the inboard openings of which are in the ship's stokehold and necessarily below the deepest sub-division load water line. Such ejectors and expellers shall be fitted with means which will prevent water entering the ship.

(k) Any gangway port, cargo port, or coaling port fitted below the margin line of such a ship shall be of adequate strength and its lowest point shall not be below the ship's deepest sub-division load water line.

#### *Side and Other Openings above Margin Line*

34. In every ship to which this Part applies side scuttles, gangway ports, cargo ports, coaling ports, and other openings in the shell plating above the margin line and their means of closing shall be of efficient design and construction and of sufficient strength having regard to the spaces in which they are fitted and their positions relative to the deepest sub-division load water line, and to the intended service of the ship.

#### *Weather Deck*

35. In every ship to which this Part applies the bulkhead deck or a deck above the bulkhead shall be weathertight. All openings in a weathertight deck shall have coallings of adequate height and strength and shall be provided with efficient and rapid means of closing so as to make them weathertight. Freeing ports or scuppers shall be provided for clearing such deck of water under all weather conditions.

#### *Sub-division Load Lines*

36. (1) Every ship to which this Part applies shall be marked on its sides amidships with the sub-division load lines assigned to it by the Central Government. The marks shall consist of horizontal lines one inch in breadth, and nine

inches in length. The marks shall be painted in white or yellow on a dark ground or in black on a light ground, and shall also be cut in a centre-punched on iron or steel ships' and cut into the planking on wood ships.

(2) The sub-division load lines shall be identified with the letter C.

(a) If there is only one subdivision load line it shall be identified with the letter C; in the case of ships of Classes III to VI inclusive, if there is only one sub-division load line it shall be identified by D.

(b) If there is more than one sub-division load line the sub-division load lines shall be identified with the letter C and with consecutive numbers beginning from the deepest sub-division load line, which shall be marked Cl. Provided that in ships of Class III to VI inclusive, the corresponding letters shall be D and D1. The identifying letters and numerals shall in every case be painted, cut or centre-punched in the same manner as the lines to which they relate.

### PART III BILGE PUMPING ARRANGEMENTS

#### APPLICATION OF PART III.

37. This Part applies to every ship to which these Rules apply.

#### General

38. Every ship to which these Rules apply shall be provided with an efficient pumping plant capable of pumping from and draining any watertight compartment in the ship under all conditions likely to arise in practice after a casualty, whether or not the ship remains upright. Wing suction shall be provided if necessary for that purpose. Efficient arrangements shall be provided whereby water in any watertight compartment may find its way to the suction pipes. Efficient means shall be provided for draining water from all insulated holds and insulated between decks in such a ship.

#### Number and Type of Bilge Pumps: Ships of Classes I to V

39. Every ship of Classes I to V inclusive shall be provided with pumps connected to the bilge main in accordance with the following table:—

Length of Ship	Less than 300 ft.		300 ft. or over	
	Less than 30	30 and over	Less than 30	30 and over
Criterion numeral				
Number of hand pumps of the crank type (may be replaced by one independent power pump)	2	..	..	..
Number of main engine pumps (may be replaced by one independent power pump)	1	1	1	1
Number of independent power pump	1	3	2	3

Number of hand pumps of the crank type (may be replaced by one independent power pump)

2

..

..

..

Number of main engine pumps (may be replaced by one independent power pump)

1

1

1

1

Number of independent power pump

1

3

2

3

(2) The aforesaid pumping plant shall be arranged as follows:—

(a) in ships provided with two hand pumps of the crank type in compliance with the foregoing paragraph, one of such pumps shall be installed forward and the other aft:

(b) in other ships of Classes I to V—

- (i) one of the pumps shall be an efficient emergency pump of a submersible type having its source of power and the necessary controls situated above the ship's bulkhead deck; or
- (ii) the power pumps in the ship and their sources of power shall be so disposed throughout the ship's length that under any condition of

flooding which the ship is required to withstand atleast one such pump in an undamaged watertight compartment will be available:—

*Number and Type of Bilge Pumps: Class VI*

40. (1) Every ship of Class VI shall be provided with bilge pumps in accordance with the following table:—

Length of the ship in feet	Number of Pumps		
	Main Engine Pumps*	Independent power Pumps	Hand Pumpst
Under 50	1	—	One of the lever type for each watertight compartment or one of the crank type.
50 and under 100	1	1	One of the lever type for each watertight compartment or one of the crank type.
100 and under 250	1	1	One of the crank type.
250 and under 300	1	1	Two of the crank type.
300 and over	1	2	...

\* The main engine pump may be replaced by one independent power pump.

† The hand pumps specified in this column may be replaced by one independent power pump.

(2) In every ship of less han 300 feet but not less than 250 feet in length provided with two hand pumps of the crank type in accordance with the fore-going paragraph, in every such ship of 300 feet in length or more and in every ship of under 300 feet in length where the hand pump or pumps are replaced by an independent power pump, paragraph (2) of Rule 39 shall apply to the pumping arrangements us it applies to the pumping arrangements in ships of Classes I to V.

*Requirements for Bilge Pumps and Bilge Suctions*

41. (1) Power bilge pumps fitted in any ship to which these Rules apply, shall where practicable be placed in separate watertight compartments so arranged or situated as not to be readily flooded by the same damage, and if the ship's engines and boilers are in two or more watertight compartments the bilge pumps there available shall be distributed through such compartments as far as possible.

(2) Every bilge pump provided in such a ship in compliance with these Rules shall be self-priming unless efficient means of priming are provided. Every such pump, other than a hand pump of the lever type and a pump provided for peak compartments only, shall, whether operated by hand or by power, be so arranged as to be capable of drawing water from any hold or any part of the machinery space in the ship.

(3) Every independent power bille pump in such a ship shall be capable of giving a speed of water through the ship's main bilge pipe of not less than 400 feet per minute. Every such pump shall have a direct suction from the space in which it is situated. Provided that not more than two direct suctions shall be required in any one space. Every such suction shall be of a diameter of not less than that of the ship's main bilge pipe. The direct suctions in the ship's machinery space shall be so arranged that water may be pumped from each side of the space through direct suctions to independent bilge pumps.

(4) There shall be provided in the stokehold of every ship, being a coal burining ship, a flexible suction hose of sufficient length to reach from a fitting of an independent power bilge pump in the ship to each side of the stokehold bilge. The hose shall be in addition to the other bilge suctions required by this Rule, and shall have an internal diameter of 4 inches, or  $\frac{1}{2}$  inch larger than that of the largest branch bilge suction required by Rule 43, whichever is the less.

(5) Any main engine circulating pumps in such a ship shall be fitted with direct suction connections, provided with non-return valves, to the lowest drainage level in the ship's machinery space, or as near thereto as will satisfy the Central Government in the case of that ship. Such connections shall be of a diameter at least twothirds of that of the ship's main sea inlet and the open and thereof or the strainer, if any, attached thereto shall be accessible for clearing. If the boiler fuel may be coal and there is no watertight bulkhead between the ship's engines and boilers, a direct discharge overboard shall be fitted from at least one of the aforesaid pumps unless a by-pass is fitted to the circulating discharge thereof. The spindles of the ship's main sea inlet and of the direct suction valves shall extend well above the engine room platform.

(6) The hand bilge pumps in such a ship shall be workable from above the ship's bulkhead deck, if any, and shall be so arranged that the bucket and tail valve can be withdrawn for examination and overhaul under flooding conditions. If two hand pumps of the crank type are fitted in such a ship, a shut off valve or cock can be operated from above the ship's bulkhead deck or non-return valves shall be provided to enable either of such pumps to be opened up without affecting the efficiency of the other.

#### *Arrangement of Bilge Pipes*

42. (1) In every ship to which these Rules apply all pipes from the pumps for draining cargo spaces or any part of the machinery space shall be distinct from pipes which may be used for filling or emptying spaces in which water or oil is carried.

(2) Lead pipes shall not be fitted in connection with bilge pumps in such a ship in or under coal bunkers, oil fuel storage tanks or in any compartment in which oil settling tanks or oil fuel pumping units are situated.

(3) Bilge suction pipes in such a ship shall not be led through oil tanks unless the pipes are enclosed in an oiltight trunkway. Such pipes shall not be led through double bottom tanks.

(4) Such pipes shall be made with flanged joints and shall be thoroughly secured in a position and protected where necessary against the risk of damage. Efficient expansion joints or bands shall be provided in each line of pipe, and where a connection is made at a bulkhead or elsewhere with a lead bend the radius of each bend and the distance between the axes of the straight parts of the pipes shall be not less than three times the diameter of the pipe and the length of any bend shall be not less than eight times that diameter.

#### *Diameter of Bilge Suction Pipes*

43. (1) Subject to the provisions of paragraph (2) of this Rule in every ship of Classes I to VI, inclusive, the internal diameter of main and branch bilge suction pipes shall be determined to the nearest  $\frac{1}{4}$  inch calculated according to the following formulae:—

$$\frac{d - \sqrt{(B - D)}}{m} = \frac{1}{1,500}$$

$$\frac{d - \sqrt{L(B - D)}}{b} = \frac{1}{1,500}$$

where  $d$ —Internal diameter main bilge suction pipes in inches.

$d_b$ —Internal diameter of the branch bilge suction pipes in inches.

$L$ —Length of ship in feet.

$B$ —Breadth of ship in feet.

$D$ —Moulded depth of ship at bulkhead deck in feet.

$L$ —Length of compartment in feet.

(2) No main bilge suction pipe in any ship of Classes I to VI, inclusive shall be less than  $2\frac{1}{2}$  inches in bore, and no branch suction pipe shall be less than 2 inches, nor need be more than 4 inch, in bore.

*Precautions against Flooding through Bilge Pipes*

44. (1) The bilge and ballast pumping systems in every ship to which Part II applies shall be so arranged as to prevent water passing from the sea or from water ballast spaces into the ship's cargo spaces or into any part of the machinery space or from one watertight compartment in the ship to another. The bilge connection to any pump which effects suction from the sea or from water ballast space or from one watertight compartment in the ship to another. The bilge cannot be opened at the same time to the bilges and to the sea or to the bilges and the water ballast spaces. Valves in bilge distribution boxes shall be of a non-return type. An arrangement of lock-up valves or of blank flanges shall be provided to prevent any deep tank in such a ship being inadvertently run up from the sea when it contains cargo or pumped out through a bilge pipe when it contains water ballast, and instructions for the working of such arrangement shall be conspicuously displayed nearby.

(2) Provision shall be made in every such ship to prevent the flooding of any watertight compartment served by a bilge suction pipe in the event of the pipe being severed or otherwise damaged, by collision or grounding, in any other watertight compartment. Where any part of such a pipe is situated nearer to the side of the ship than one-fifth of the mid-ship breadth of the ship measured at the level of the deepest subdivision load water line, or in any duct keel a non-return valve shall be fitted to the pipe in the watertight compartment containing the open end of the pipe.

*Bilge Valves, Cocks etc.*

45. (1) In every ship to which Part II applies all distribution boxes, valves and cocks fitted in connection with the bilge pumping arrangements shall be in positions which are accessible at all times in ordinary circumstances and shall be so arranged that in the event of flooding one of the bilge pumps may operate on any watertight compartment in the ship. If in any such ship there is only one system of pipes common to all such pumps, the necessary valves or cocks for controlling the bilge suction shall be capable of being operated from above the ship's bulkhead deck. If an emergency bilge pumping system is provided in addition to the main bilge pumping system it shall be independent of the main system and shall be so arranged that the pump is capable of being operated under flooding conditions on any watertight compartment. Provided that in any ship of Class VI of under 100 feet in length provided with a hand pump of the lever type for each watertight compartment in accordance with the provisions of paragraph (1) of Rule 40, the valves and cocks on the bilge main for controlling the bilge suction need not be workable from above the ship's bulkhead deck if they are in the same compartment as a power pump.

(2) Every operating rod for bilge suction valves or cocks in every such ship shall be led as directly as possible and shall have an index plate at the position above the bulkhead deck from which it is operated showing the purpose served by the valve or cock and how it may be opened and closed. Every such rod passing through cargo or bunker spaces shall be protected against damage.

*Bilge Mud Boxes and Strum Boxes*

46. Bilge suctions in the machinery space of every ship to which these Rules apply shall be led from readily accessible and boxes placed wherever practicable above the level of the working floor of such space. The boxes shall have straight tail-pipes to the bilges and covers secured in such a manner as will permit them to be readily opened and closed. The suction ends in hold spaces and tunnel wells shall be enclosed in strum boxes having perforations approximately  $\frac{1}{2}$  inch in diameter, and the combined area of such perforations shall not be less than twice that of the end of the suction pipe. Strum boxes shall be so constructed that they can be cleared without breaking any joint of the suction pipe.

*Sounding Pipes*

47. In every ship to which Part II applies all tanks forming part of the structure of the ship and all watertight compartments, not being part of the machinery space, shall be provided with efficient sounding arrangements which shall be protected where necessary against damage. Where such arrangements consist of sounding pipes, a thick steel doubling plate shall be securely fixed

below each sounding pipe for the sounding rod to strike upon. All such sounding pipes shall extend to positions above the ship's bulkhead deck which shall at all times be readily accessible. Sounding pipes for bilges, coffer dams and double bottom tanks, being bilges, coffer dams and tanks situated in the machinery space, shall so extend unless the upper ends of the pipes are accessible in ordinary circumstances and are furnished with cocks having parallel plugs with permanently secured handles so loaded that on being released they automatically close the cocks. Sounding pipes for the bilges of insulated holds shall be insulated and not less than  $2\frac{1}{2}$  inches in diameter.

## PART IV—ELECTRICAL EQUIPMENT AND INSTALLATIONS

### APPLICATION OF PART IV

48. This Part applies to every ship to which these Rules apply.

#### General

49. (1) In every ship to which these Rules apply the electrical equipment and installations, other than the electrical means of propulsion, if any, shall be such that the electrically operated services essential for the safety of the ship and of persons on board can be maintained under emergency conditions.

(2) Without prejudice to the preceding provisions of this Rule, the electrical equipment and installations (including any electrical means of propulsion) in every such ship shall be such that the ship and all persons on board are protected against electrical hazards and shall conform with the relevant provisions of the Regulations for the Electrical Equipment of Ships issued by the Institution of Electrical Engineers and dated September, 1939, as amended by a supplement dated November, 1947, except in so far as such Regulations as so amended are inconsistent with these Rules.

#### Main Generating Sets: Ships of Classes I to VI Inclusive

50. Every ship of Classes I to VI, inclusive, being a ship in which electrical power is the only power for maintaining the auxiliary services essential for the propulsion or safety of the ship, shall be provided with not less than two main generating sets the power of which shall be sufficient to operate the aforesaid services in the event of any one of the sets being out of service. Arrangements shall be made which will safeguard such sets from being rendered inoperative in the event of the partial flooding of the ship's machinery space through leakage from a damaged compartment or otherwise.

#### Emergency source of Electrical Power: Ships of Classes I to V

51. (1) In every ship of Classes I to V inclusive there shall be provided in a position above the bulkhead deck outside the machinery casings a self-contained emergency source of electrical power capable of operating simultaneously for a period of 36 hours, or for such shorter period as the Central Government may permit in the case of any ship regularly engaged on voyages of short duration,—

- (a) the ship's emergency bilge pump, if it is electrically operated;
- (b) the ship's watertight doors, if they are electrically operated;
- (c) the ship's emergency lights at every boat station on deck and overside, in all alleyways, stairways and exits, in the machinery space, in the control station where radio, main navigating and central fire recording equipments are situated, and in the place where the emergency generator, if any, is situated;
- (d) the ship's navigation lights, if operated solely by electric power; and
- (e) all communication equipment and signals which may be required in an emergency, if they are electrically operated from the ship's main generating sets.

(2) The emergency source of electrical power may be either an accumulator battery capable of complying with paragraph (1) of this Rule without being recharged or suffering an excessive voltage drop, or a generator driven by a compression ignition engine with an independent fuel supply and with efficient starting arrangements. The fuel provided for such engine shall have a flash point of not less than  $110^{\circ}\text{F}$ .

(3) The emergency source of electrical power shall be so arranged that it will operate efficiently when the ship is listed  $22\frac{1}{2}^{\circ}$  and when the trim of the ship is  $10^{\circ}$  from an even keel.

(4) (a) If the emergency source of electrical power is an accumulator battery, the arrangements shall be such that the ship's emergency lighting system will come into operation automatically in the event of the failure of the main source of power for the ship's main lighting system.

(b) If the emergency source of electrical power is a generator, an accumulator battery shall be provided as a temporary source of electrical power, so arranged as to come into operation automatically in the event of a failure of the main or emergency source of electrical power, and of sufficient capacity—

- (i) to operate the ship's emergency lighting system continuously for half an hour, and
- (ii) while such lighting system is in operation to close the ship's watertight doors if they are electrically operated, but not necessarily to close all of such doors simultaneously.

(c) Means shall be provided by which the automatic arrangements referred to in this paragraph can be tested.

#### *Emergency source of Electrical Powerships of Class VI*

52. (1) In any ship of Class VI which is provided with an emergency bilge pump in compliance with paragraph (2) of Rule 40 of these Rules, being an electrically operated pump, there shall be provided in a position above the bulkhead deck outside the machinery casings a self-contained emergency source of electrical power capable of operating the pump for a period of 24 hours.

(2) The emergency source of electrical power may be either an accumulator battery capable of complying with paragraph (1) of this Rule without being recharged or suffering an excessive voltage drop, or a generator driven by a compression ignition engine with an independent fuel supply and with efficient starting arrangements. The fuel provided for such engine shall have a flash point of not less than  $110^{\circ}\text{F}$ .

(3) The emergency source of electrical power shall be so arranged that it will operate efficiently when the ship is listed  $22\frac{1}{2}^{\circ}$  and when the trim of the ship is  $10^{\circ}$  from an even keel.

#### *Distribution Systems*

53. (1) In every ship to which these Rules apply every open-type switchboard shall be arranged so as to allow ready access to the back and front thereof without danger to any person who in the course of his duties may inspect or repair the switchboard or its connections or operate the devices thereon. The sides and backs of the switchboard shall be guarded by a hand rail, wire netting, expanded metal or other equally efficient means of protection and a non-conducting mat or grating shall be provided as a floor covering. No exposed parts which may have a voltage to earth exceeding 250 volts direct current or 150 volts alternating current shall be installed on the face of any switchboard or control panel.

(2) Hull return shall not be used in any such ship for the power, heat and light distribution systems thereof.

(3) If, in any such ship, two or more generating sets may be in operation at the same time for maintaining the auxiliary services essential for the propulsion or safety of the ship, provision shall be made for the sets to operate in parallel and means shall be provided so that in the event of overload or a partial failure of the power supply the services not essential to the propulsion and safety of the ship will be cut out first, the services essential for those purposes being retained in circuit with such of the generators as may remain in service.

(4) In every such ship any electrically operated steering gear shall be served by two sets of feeder cables from the ship's main switchboard. Such sets of feeder cables shall be separated from each other throughout their length as widely as practicable. Each feeder cable shall have a capacity adequate for serving all motors which may operate simultaneously in connection with steering gear. Such cables and motors shall be protected by fuses, circuit breakers or other similar devices against short circuits, but shall not be so protected against lesser loads.

(3) If in any such ship the power supply for an automatic sprinkler system requiring not less than two sources of power supply for sea-water pumps, air compressors and automatic alarms, is electrical, such power supply shall be taken through the emergency switchboard by a feeder reserved solely for that purpose. There shall be no switch in the circuit other than that at the switchboard. The switch shall be clearly and permanently labelled to indicate its purposes and to indicate that it shall normally be kept closed.

(6) In every such ship the main and emergency feeder cables shall be separated vertically and horizontally as widely as practicable.

#### General Electrical Precautions

34. (1) In every ship to which these Rules apply all exposed metal parts of electrical equipment which are not intended to have a voltage above that of earth but which may have such a voltage under fault conditions shall be earthed, and all such equipment shall be so constructed and installed that there will be no danger of injury to a person handling it in a proper manner. The metal frames of all portable lamps and tools and other portable apparatus provided in such a ship and operating on an electric supply of a voltage of 100 volts or more shall be earthed through a conductor in the supply cable.

(2) Every electrical cable in such a ship shall, at every position at which an electrical fault may cause a fire, be covered by metal sheaths, metal armour or other equally effective means of protection. All metal sheaths and metal armour of electrical cable in such a ship shall be electrically continuous and shall be earthed.

(3) Wiring in every such ship shall be supported in such a manner as to avoid chafing and other injury.

(4) In every such ship the joints in all electrical conductors shall be made only in junction or outlet boxes except in the case of low voltage communication circuits. All such junctions or outlets boxes shall be so constructed as to prevent the spread of fire therefrom.

(5) All lighting fittings in every such ship shall be so arranged as to prevent rises in temperature which would be injurious to the electrical wiring thereof or which would result in a risk of fire in the surrounding material.

(6) Every electric space-heater forming part of the equipment of such a ship shall be fixed in position and shall be so constructed as to reduce the risk of fire to a minimum. No such heater shall be constructed with an element so exposed that clothing, curtains or other similar material can be scorched or set on fire by heat from the element.

(7) In every such ship each separate electrical circuit, other than a circuit which operates the ship's steering gear, shall be protected against overload. There shall be clearly and permanently indicated on or near each overload protective device the current carrying capacity of the circuit which it protects and the rating or setting of the device.

(8) In every such ship all accumulator batteries shall be housed in boxes or compartments which are so constructed as to protect the batteries from damage and are so ventilated as to minimise the accumulation of explosive gas. Electrical devices which are likely to arc shall not be installed in any compartment used to house accumulator batteries unless such devices are flame-proof.

#### Spare Parts and Tools

55. Every ship of Classes I to VI inclusive, shall be provided with an adequate quantity of replacements for those parts of the ship's electrical equipment and installations which, having regard to the intended service of the ship, it would be essential for the safety of the ship and of persons on board to replace in the event of failure while the ship is at sea, together with such tools as are necessary for the fitting of those replacements.

#### PART V—FIRE PROTECTION: SHIPS OF CLASSES I TO V INCLUSIVE

##### APPLICATION OF PART V

56. This Part applies to ships of Classes I to V inclusive.

*Exemption from Part V*

57. (1) The Central Government may exempt from any of the requirements of Rules 62 to 69 inclusive and 71 to 75 inclusive of these Rules any ship carrying not more than 36 passengers if it is satisfied that the ship is fitted with an efficient fire detection system capable of giving a visible and audible alarm signal at one or more points in the ship so as to come rapidly to the notice of the master and crew of the ship, which will indicate the presence and position of any fire in any accommodation space or service space, other than a space which in the opinion of the Central Government affords no substantial fire risk.

(2) The Central Government may further exempt any ship of Classes II, IV and V from the requirements of this Part to the extent that it is satisfied that compliance therewith is unreasonable or impracticable by reason of the intended service of the ship.

*Exhibition of Plans*

58. In every ship to which this Part applies there shall be provided for the guidance of the Master of the ship plans showing for each deck the sections of the ship enclosed by "A" Class divisions and the sections of the ship enclosed by "B" Class divisions, together with particulars of the fire alarm and fire detecting systems, sprinkler installations and fire extinguishing appliances provided in the ship, the means of entry into and exit from the various compartments and decks in the ship, and of the ship's ventilating system, including in particular the positions of the dampers thereof and the identification numbers of the ventilation fans serving each section of the ship. Such plans shall be protected by glass or similar material and shall be permanently affixed to a bulkhead, table or desk near the place from which the ship is normally navigated.

*"A" and "B" Class Division*

59. (1) Every "A" Class division required by these Rules shall be constructed of steel or similar material, in either case stiffened so as to be capable of preventing the passage of smoke and flame throughout a standard fire test of 60 minutes duration. The division shall have an adequate insulating value having regard to the nature of the spaces adjacent thereto, and if the division is between spaces either of which contains adjacent combustible material it shall be so insulated that if either face of the division is exposed to a standard fire test of 60 minutes duration the average temperature on the unexposed face of the division will not increase at any time during the test by more than 250°F (139°C) above the initial temperature on that face nor shall the temperature at any one point thereon increase by more than 325°F (180°C) above the initial temperature.

(2) Every "B" Class division required by these Rules shall be capable of preventing the passage of smoke and flame throughout a standard fire test of 30 minutes duration. Every such division shall have an adequate insulating value having regard to the nature of the spaces adjacent thereto. The division shall be so constructed that if either face thereof is exposed to a standard fire test of 30 minutes duration the average temperature on the unexposed face of the division will not increase by more than 250°F (139°C) above the initial temperature on that face, nor shall the temperature at any one point thereon increase by more than 325°F (180°C) above the initial temperature. Provided that any division which is constructed wholly of incombustible material shall be required to comply with the foregoing requirement relating to increase of temperature only during the first 15 minutes of a standard fire test.

(3) The Central Government may exempt any ship from the requirements of this Rule relating to insulation to the extent that it is satisfied that compliance therewith is unnecessary having regard to the degree of fire hazard present.

*Structure of the Ship*

60. (1) The hull, superstructure, structural bulk-heads, decks and deckhouses of every ship to which this Part applies shall be constructed of steel. The Central Government may exempt any ship wholly or in part from the requirements of this paragraph if it is satisfied that the aforesaid parts of the ship are constructed of material equally resistant to fire.

(2) The hull, superstructure, and deckhouses of every ship to which this Part applies shall be subdivided by bulkheads consisting of "A" class divisions into main vertical zones. The mean length of each zone, above the bulkhead deck,

shall not exceed 131 feet. Any steps in such bulkheads shall consist of "A" class divisions.

(3) Any portions of such divisions which extend above the ship's bulkhead deck shall, whenever possible, be in line with watertight subdivision bulkheads situated immediately below the bulkhead deck and shall extend from deck to deck and to the ship's shell plating and, in the case of a deckhouse, to the external plating thereof.

(4) The Central Government may exempt any ship from the requirements of paragraphs (2) and (3) of this Rule to the extent that it is satisfied that compliance therewith is incompatible with the purpose for which the ship is designed and that other equally effective methods of fire protection have been adopted in the ship.

#### *Openings in "A" Class Divisions*

61. (1) If, in any ship to which this Part of these Rules applies, any "A" class division is pierced for the passage of electric cables, pipes, trunkways, girders or beams, or for other purposes, the arrangements shall be such that the effectiveness of the division in resisting fire is not thereby impaired.

(2) Dampers shall be fitted in any trunkways which pass through an "A" class division and shall be provided with a suitable means of local control capable of being operated from both sides of the division. The positions from which such means of control may be operated shall be readily accessible and shall be permanently marked in red. Indicators shall be provided to show whether the dampers are open or shut.

(3) Any opening in such a division shall be provided with means of closure permanently attached to the division. The means of closure shall be as effective as the division in resisting fire.

(4) Any door in such a division shall be so constructed that it can be opened and closed by one person from either side of the division. The door and the means of keeping it closed shall be as effective as the division in resisting fire. Provided that a watertight door shall not be required to be insulated. If the division is constructed in compliance with paragraph (2) of Rule 60 of these Rules and any door therein is not a watertight door, such doors shall be self-closing and shall be provided with a device by which it may readily be released from the open position.

#### *Separation of accommodation spaces from other enclosed spaces*

62. In every ship to which this Part applies the bulkheads and decks separating accommodation spaces from other enclosed spaces shall consist of "A" class divisions.

#### *Protection of Stairways*

63. (1) In every ship to which this Part applies every stairway within an accommodation space or service space shall be of steel frame construction and shall lie within an enclosure constructed of "A" class divisions. Provided that—

- (a) a stairway serving only two decks shall not be required to be enclosed by "A" class divisions at more than one deck;
- (b) a stairway in a public room shall not be required to be so enclosed if it lies wholly within the room.

The Central Government may exempt any ship, being a ship in which Method II of fire protection, within the meaning of Rule 71 of these Rules, has been adopted, from the requirements of this paragraph in relation to any stairway which it is satisfied is an auxiliary stairway adequately protected by sprinklers.

(2) Every opening in a bulkhead forming part of a stairway enclosure shall be provided with a means of closure which shall be permanently attached thereto. The means of closure shall be as effective as the bulkhead in resisting fire, and shall be self-closing unless it is a watertight door.

(3) Every stairway enclosure in such a ship shall communicate directly with the corridors, adjacent thereto and shall have an area sufficient to prevent congestion, having regard to the number of persons likely to use the stairway in an emergency. Every such enclosure shall contain as little accommodation space or service space as is practicable in the circumstances.

*Protection of lift and vertical trunks for light and air*

64. (1) In every ship to which this Part of these Rules applies every lift trunk, and every light-and-air and similar trunk in an accommodation space or service space, shall be constructed of "A" class divisions. Provided that a lift trunk within a stairway enclosure shall not be required to be insulated. Every door in such a trunk shall be constructed of steel or other incombustible material and shall be as effective as the trunk in resisting fire.

(2) Every lift trunk in such a ship shall be so fitted as to prevent the passage of smoke and flame from one between deck to another, and shall be provided with means of closure which will enable draught and smoke to be controlled.

(3) If in such a ship a light-and-air or similar trunk communications with more than one between-deck space and smoke and flame may be conducted from one between-decks to another, smoke shutters shall be fitted so as to enable each such space to be isolated in the event of fire.

(4) Every other trunk in such a ship shall be so constructed as not to afford a passage for fire from one between decks or compartment to another.

*Protection of Control Stations*

65. (1) Every control station in a ship to which this Part applies shall be separated from the rest of the ship by bulkheads and decks consisting of "A" class divisions.

(2) The radiotelegraph room in such a ship shall not be situated directly above any stairway.

*Protection of Store Rooms 'etc.*

66. (1) In every ship to which this Part applies the boundary bulkheads separating a galley, baggage room, mail room, store room, paint room, lamp room, or any similar space from any other space shall consist of "A" class divisions.

(2) Spaces appropriated for the storage of highly inflammable stores shall be so constructed and situated as to minimise the danger to persons on board in the event of fire.

*Deck Sheathing*

67. In every ship to which this Part of these Rules applies any permanent deck sheathing within an accommodation space, service space, control stations, stairway or corridor shall be such as will not readily ignite.

*Ventilation Systems*

68. (1) The inlets of every air supply system and the outlets of every air exhaust system in every ship to which this Part applies shall have readily accessible means by which they can be closed in the event of fire. Wherever practicable the system of ducts leading from each ventilating fan shall be within one main vertical zone.

(2) Every such ship shall be equipped with two master controls, situated as far apart as is practicable, either of which shall be capable of stopping all the fans in the power ventilation systems of the ship, other than the ventilation systems in the machinery space. Every power ventilation system serving the machinery space shall have two master controls one of which shall be capable of being operated from outside such space. Any exhaust duct from galley ranges in such a ship shall be constructed of "A" class divisions which shall be insulated where the ducts pass through accommodation spaces or service spaces.

*Miscellaneous items of Fire Protection*

69. (1) Every air space enclosed behind a ceiling, panel or lining in the accommodation spaces or service spaces of a ship to which this Part applies shall be divided by close fitting draught-stops spaced not more than 45 feet apart in the fore and aft direction, and shall be closed at each deck.

(2) Every such ceiling, panel and lining shall be so constructed as to enable a fire patrol to detect any smoke originating in a concealed or inaccessible space, without impairing the efficiency of the fire protection of the ship.

(3) In every such ship the concealed surfaces of every bulkhead, lining, panelling, stairway, wood grounds and other structure in accommodation spaces and service spaces shall be such that they will be surfaces of low flame spread within the meaning of Amendment No. 2, dated July, 1945, to the British Standard Definitions for Fire-Resistance, Incombustibility and Non-Inflammability of Building Materials and Structures (B.S. 476: 1932).

(4) In such a ship, paints, varnishes or similar preparations shall not be applied if they contain a nitro-cellulose base, and fabrics containing nitro-cellulose shall not be fitted.

(5) In such a ship overboard scuppers, sanitary discharges or other outlets shall not be made of lead if they are close to the water line or in such a position that the fusing of the lead in the event of fire would give rise to a danger of flooding.

(6) In such a ship the use of wood for the construction and equipment of galleys, bakeries and main pantries shall be restricted so far as is practicable.

(7) Every window and side scuttle in the accommodation spaces and service spaces of such a ship shall be constructed with metal frames. The glass therein shall be retained by a metal ring or bead. If the window or side scuttle is in a position in which the fusion of the frame, ring or bead, may give rise to a danger of flooding, the frame, ring or bead, as the case may be, shall consist of metal which is not likely to fuse in the event of fire. Every window and side scuttle in such a ship opening on to a corridor or stairways shall be as effective in resisting fire as the bulkhead in which it is fitted.

#### *Provision for Cinematograph Exhibitions*

70. If any inflammable film is carried in a ship to which this Part applies for exhibition therein the ship and the cinematograph equipment provided therein shall comply with the requirements specified in the Fourth Schedule to these Rules.

#### *Methods of Fire Protection*

71. The accommodation spaces and service spaces in every ship to which this Part applies shall be constructed in accordance with one of the following methods of fire protection and shall comply with such of the following requirements of this Part as are expressed to apply to ships in which that method has been adopted:—

*Method I.*—The construction in the accommodation spaces and service spaces of a system of internal bulkheading consisting of "B" class divisions, together with an automatic fire alarm and fire detection system in these spaces.

*Method II.*—The fitting of an automatic sprinkler, fire detection and fire alarm system in the accommodation spaces and service spaces.

*Method III.*—The sub-division of the accommodation spaces and service spaces by "A" class and "B" class divisions, together with the fitting of an automatic fire alarm and fire detection system in all accommodation spaces and service spaces and restriction of the provision of combustible material in these spaces.

#### *Bulkheads within Main Vertical Zones (Methods I and III)*

(1) *Method I*—(a) Every bulkhead within the accommodation spaces or service spaces of a ship in which Method I of Fire protection has been adopted not being a bulkhead required by these Rules to consist of "A" class divisions, shall consist of "B" class divisions. The bulkheads shall be joined together in a manner which will ensure the maximum resistance to fire. If such a ship carries more than 100 passengers, the said "B" class divisions shall be constructed of incombustible material but, subject to the provisions of paragraph (1)(b) of Rule 75 of these Rules, may be faced with combustible material.

(b) Every such bulkhead shall extend from deck to deck. Provided that a bulkhead, other than a corridor bulkhead, may terminate at a ceiling consisting of incombustible material.

(c) Where the ship's shell plating forms the boundary of the accommodation spaces or a service space, the adjacent transverse bulkheads shall extend to the shell plating. Where the external plating of a deckhouse forms the boundary of

an accommodation space or service space, the adjacent transverse and longitudinal bulkheads shall extend to the external plating. Provided that any such bulkhead, other than a corridor bulkheads, may terminate at a lining consisting of incombustible material.

(d) Any ventilation opening in a corridor bulkhead shall be in a lower part of the bulkhead wherever practicable and shall be provided with a grille constructed of incombustible material.

(2) *Method III.*—(a) Bulkheads within the accommodation spaces and service spaces of every ship in which Method III of fire protection has been adopted, not being a bulkhead required by these Rules to consist of "A" class divisions, shall be constructed of "B" class divisions so as to form a continuous network of "B" class divisions, or together with such bulkheads as are constructed of "A" class divisions, a continuous network of "A" and "B" class divisions, the area of any one compartment formed by such network shall not exceed 1,800 sq. ft. and shall wherever practicable not exceed 1,300 square feet.

(b) Every public room in such a ship, being a space without interior subdivisions, shall except at the shell plating of the ship or the external plating of a deckhouse, be bounded by bulkheads consisting of "B" class divisions unless the bulkheads inclosing the room are required by these Rules to consist of "A" class division.

(c) Every corridor bulkhead in such a ship shall consist of "B" class divisions unless it is required by these Rules to consist of "A" class divisions, and shall extend from deck to deck. Provided that ventilation openings having grilles of incombustible material may be installed in such bulkhead at points where no ceilings are fitted above such bulkhead or where the ceilings there fitted are constructed of incombustible material.

(d) If such a ship carries more than 100 passengers every "B" class division constructed in accordance with this paragraph shall be constructed of incombustible material but subject to the provisions of paragraph (2) of Rule 75 of these Rules, may be faced with combustible material. If such a ship carries 100 passengers or less, every such division shall have an incombustible core or shall be assembled with internal layers of sheet asbestos or similar incombustible material and in either case shall comply with the requirements of paragraph (2) of Rule 59 as if it were constructed wholly of combustible material.

#### *Automatic Fire Alarm and Fire Detection Systems (Methods I and III)*

73. (1) In every ship in which Method I or Method III of fire protection has been adopted a fire alarm and fire detection system shall be installed which will detect the presence of fire in any accommodation space or service space and will indicate the presence and position of the fire by a signal given at one or more points in the ship so as to come rapidly to the notice of the master and crew of the ship.

(2) The Central Government may exempt any ship from the requirements of this Rule to the extent that it is satisfied that the accommodation spaces and service spaces therein afford no substantial fire risk.

#### *Automatic Sprinkler, Fire Alarm and Fire Detection Systems (Method II)*

74. (1) In every ship in which Method II of fire protection has been adopted an automatic sprinkler and fire alarm and fire detection system complying with the requirements specified in the Fifth Schedule to these Rules shall be installed and so arranged as to protect all accommodation spaces and service spaces in the ship.

(2) The Central Government may exempt any ship from the requirements of this Rule—

(a) to the extent that it is satisfied that the accommodation spaces and service spaces therein afford no substantial fire risk;

(b) in respect of any baggage room or store room which it is satisfied is provided with adequate arrangements for the detection of fire or for the smothering of fire by gas or steam.

*Restriction of Combustible Material, etc. (Methods I and III)*

75. (1) *Method I.*—(a) In every ship in which Method I of fire protection has been adopted all linings, grounds, ceilings and insulation shall consist of incombustible material except in cargo spaces, mail rooms, bullion rooms, baggage room and refrigerated store rooms. Provided that the linings, grounds and ceilings in ship carrying not more than 100 passengers may be constructed of combustible material having the same fire-resisting properties as the material of the bulkheads enclosing the spaces in which they are situated.

(b) The total volume of combustible materials installed as facings, mouldings, decorations or veneers in any accommodation space or service space in a ship in which Method I of fire protection has been adopted, being a ship carrying more than 100 passengers, shall not exceed a volume equal to that of a veneer of one-tenth of an inch on the combined area of the walls and ceiling of such space. Any facings, mouldings, decorations, or veneers installed in the corridors or stair-way enclosures in such a ship shall consist of incombustible materials.

(2) *Method III.*—In every ship in which Method III of fire protection has been adopted the provision of combustible materials for linings, grounds, ceilings, fittings and furnishings in any space in the accommodation spaces or service spaces shall be restricted to the minimum compatible with the use for which that space is appropriated. In the public rooms in such a ship the grounds and supports for the linings and ceilings shall be constructed of steel or other material equally effective in resisting fire. All exposed surfaces and their coatings in the accommodation spaces of such a ship shall be surfaces of low flame spread within the meaning of paragraph (3) of Rule 69 of these Rules.

**PART V(A) FIRE PROTECTION: SHIPS OF CLASS VI****APPLICATION OF PART V(A)**

76. This Part applies to ships of Class VI.

*Structure of the Ship*

77. The hull, superstructure, structural bulkheads, decks and deckhouses of every ship of Class VI shall be constructed of steel. The Government of India may exempt any ship wholly or in part from the requirement of this Rule.

*Divisions*

78. In every ship to which this Part applies, being a ship fitted with internal combustion propelling machinery or oil-fired boilers, the accommodation spaces shall be separated from machinery spaces by "A" class divisions.

**PART VI BOILERS AND MACHINERY****APPLICATION OF PART VI**

79. This Part applies to every ship to which these Rules apply.

*General*

80. The boilers and machinery provided in any ship to which these Rules apply shall be of a design and construction adequate for the service for which they are intended, and shall be so installed and protected as not to constitute a danger to persons on board. Without prejudice to the generality of the foregoing, means shall be provided which will prevent overpressure in any part of such boilers and machinery, and in particular every boiler and other pressure vessel used for generating steam shall be provided with not less than two safety valves.

*Power for going Astern*

81. The propelling machinery of every ship to which these Rules apply shall have sufficient power for going astern, and the propulsion of the ship shall be capable of being reversed with sufficient speed, to enable the ship to be properly handled.

*Boilers, Superheaters, Economisers, Evaporators, Distillers and other steam or water pressure vessels.*

82. (1) In every ship to which these Rules apply, every boiler superheater, economiser, evaporator, distiller and other steam or water pressure vessel, and their respective mountings, shall be so designed and constructed as to withstand

the maximum working stresses to which they may be subjected, with a factor of safety which is adequate, having regard to—

- (a) their design and the material of which they are constructed;
- (b) the purpose for which they are intended to be used; and
- (c) the working conditions under which they are intended to be used.

Provision shall be made which will facilitate the cleaning and inspection of such pressure vessels.

(2) Without prejudice to the generality of the foregoing—

- (a) every such boiler and superheater, when put into service for the first time in such a ship, shall be capable of withstanding for a period of not less than thirty minutes a test by hydraulic pressure to the following extent:—
  - (i) to one and one-half times the maximum working pressure of the boiler plus 50 lb. per square inch; if such working pressure is more than 100 lb. per square inch; or
  - (ii) to twice the maximum working pressure of the boiler, if such working pressure is 100 lb. per square inch or less;
- (b) every such boiler and superheater, being a boiler or superheater of such dimensions and form that an adequate internal examination thereof can be made, shall, at any time after first being put into service in such a ship, be capable of withstanding for a period of not less than thirty minutes a test by hydraulic pressure to one and one-half times the maximum working pressure of the boiler;
- (c) every such boiler and superheater, being a boiler or superheater of such dimensions and form that an adequate internal examination thereof cannot be made, shall, at any time after first being put into service in any such ship, be capable of withstanding a test by hydraulic pressure to the extent specified in sub-paragraph (a) of this paragraph.

(3) Every such economiser shall be capable at all times of withstanding a test by hydraulic pressure to the following extent:—

- (a) if the economiser cannot be shut off from the boiler, to the same extent as is required by sub-paragraph (a) of paragraph (2) of this Rule in relation to the boiler to which the economiser is connected; or
- (b) if the economiser can be shut off from the boiler, to one and one-half times the maximum working pressure of the safety valve of the economiser plus 50 lb. per square inch.

(4) Each mounting of every such boiler, not being a mounting in the boiler feed system, shall be capable of withstanding a test by hydraulic pressure to twice the maximum working pressure of the boiler.

Each mounting of every such superheater and economiser, not being a mounting in the boiler feed system, shall be capable of withstanding a test by hydraulic pressure to twice the maximum working pressure of the boiler to which the superheater or economiser, as the case may be, is connected.

*Machinery*

83. (1) In every ship to which these Rules apply a governor shall be provided for any ahead turbine or set of turbines which drives a single gear wheel forming part of the main propelling machinery, so as to shut off the steam automatically in the event of overspeed. A hand-trip gear shall also be provided for that purpose.

(2) In every such ship means shall be provided which will shut off automatically the steam from any ahead turbine, and any other machinery served by the same lubricating oil system as the turbine, in the event of any failure of that system.

(3) (a) The Nozzle boxes of every impulse steam turbine fitted in such a ship shall be capable of withstanding a test by hydraulic pressure to one and one-half times the maximum pressure to which they may be subjected in service.

(b) The steam casings of every turbine fitted in such a ship shall be capable of withstanding a test by hydraulic pressure to one and one-half times the maximum working pressure in such casings or 30 lbs. per square inch, whichever shall be the greater.

(4) The cylinders of all steam reciprocating machinery fitted in such a ship shall be capable of withstanding a test by hydraulic pressure to the following extent:

Type of engine	Cylinder Pressure	Pressure of test
Compound expansion	High	$1\frac{1}{2}$ x M. W. P.
Compound expansion	Low	10 lbs. per square inch.
Triple expansion	High	$1\frac{1}{2}$ x M. W. P.
Triple expansion	Intermediate	$\frac{4}{3}$ x M. W. P.
Triple expansion	Low	10 lbs. per square inch.
Quadruple expansion	High	$1\frac{1}{2}$ x M. W. P.
Quadruple expansion	1st Intermediate	$\frac{3}{2}$ x M. W. P.
Quadruple expansion	2nd Intermediate	$\frac{2}{3}$ x M. W. P.
Quadruple expansion	Low	30 lbs per square inch.

In the foregoing table "M.W.P." means, in relation to a cylinder, the maximum working pressure of the boiler to which the machinery of which cylinder forms a part is connected.

(5) The cylinder liners of every compression ignition engine fitted in such a ship, shall be capable of withstanding a test by hydraulic pressure to 100 lbs. per square inch. The cooling passages of the cylinders, covers and other fluid cooled parts of such engine shall be capable of withstanding a test by hydraulic pressure to 30 lbs. per square inch.

(6) Subject to the provisions of paragraph (2) of Rule 52 of these Rules and paragraph (2) of Rule 53 thereof, no machinery or boilers shall be fitted in such a ship which is designed to be operated by means of oil fuel having a flash point of less than 150°F.

#### Shafts

84. In every ship to which these Rules apply every shaft shall be so designed and constructed that it will withstand the maximum working stresses to which it may be subjected, with a factor of safety which is adequate having regard to—

- (a) the material of which it is constructed;
- (b) the service for which it is intended; and
- (c) the type of the engines by which it is driven or of which it forms a part.

#### Boiler Feed Systems

85. (1) Every boiler fitted in a ship to which these Rules apply shall be provided with not less than two efficient and separate feed systems so arranged that either of such systems may be opened up for inspection or overhaul without affecting the efficiency of the other. Means shall be provided which will prevent overpressure in any part of the systems.

(2) If it is possible for oil to enter the feed water system in such a ship, the arrangements for supplying boiler feed water shall provide for the interception of oil in the feed water.

(3) Every feed check valve, fitting and pipe through which feed water passes from a pump to the boilers in such a ship shall be of efficient design and of sufficient strength to withstand with an adequate factor of safety the maximum working pressure to which the feed line may be subjected. Such valve, fitting and pipe shall also be capable of withstanding a test by hydraulic pressure to two and one-half times the maximum working pressure of the boiler to which they are connected or twice the maximum working pressure of the feed line, whichever shall be the greater. The feed pipes shall be adequately supported.

#### Steam Pipe Systems

86. (1) In every ship to which these Rules apply, every steam pipe and every fitting connected thereto through which steam may pass shall be so designed and constructed as to withstand the maximum working stresses to which it may be subjected, with a factor of safety which is adequate having regard to—

- (a) the material of which it is constructed; and
- (b) the working conditions under which it will be used.

The steam pipes shall be adequately supported.

(2) Without prejudice to the generality of the foregoing, every such steam pipe and fitting shall be capable of withstanding a test by hydraulic pressure to twice the maximum working pressure to which it may be subjected.

(3) Provision shall be made which will avoid excessive stress likely to lead to the failure of any such steam pipe, whether by reason of variation in temperature, vibrations or otherwise.

(4) Efficient means shall be provided for draining every such steam pipe so as to ensure that the interior of the pipe is kept free of water and that water hammer action will not occur under any conditions likely to arise in the course of the intended service of the ship.

(5) If, in any ship to which these Rules apply, a steam pipe may receive steam from any source at a higher pressure than it can withstand with an adequate factor of safety, an efficient reducing valve, relief valve and pressure gauge shall be fitted to such pipe.

#### Air Pressure Systems

87. (1) Every ship to which these Rules apply, being a ship propelled by compression ignition engines designed to be started by compressed air, shall be provided with at least two starting air compressors, each of which shall be of efficient design and of sufficient strength and capacity for the service for which it is intended. Provided that in ships of Class VI, only one such compressor shall be required.

(2) Without prejudice to the generality of the foregoing—

- (a) every cylinder forming part of an air compressor in a ship to which these Rules apply shall be capable of withstanding a test by hydraulic pressure to twice its maximum working pressure;
- (b) every cooling coil of each stage forming part of such air compressor shall be capable of withstanding a test by hydraulic pressure to twice the maximum working pressure of that stage;
- (c) the cooling passages of such air compressor and the cooler casings thereof shall be capable of withstanding a test by hydraulic pressure to 30 lbs. per square inch; and
- (d) a relief valve shall be fitted in the high pressure discharge from such compressor, and a relief valve or safety diaphragm shall be fitted on the casings of the high pressure cooler.

(3) Every such ship shall be provided with a starting air compressor which can be put into operation without a supply of compressed air, and which shall be additional to the compressors required by paragraph (1) of this Rule. Provided that such additional compressor shall not be required if a compressor fitted in accordance with the said paragraph can be put into operation without a supply of compressed air.

(4) Every ship to which these Rules apply, being a ship propelled by compression ignition engines designed to start by compressed air, shall be provided with at least two air receivers, which shall be of such aggregate capacity, that when they are filled with compressed air, the air contained therein will be sufficient to start each of the ship's main engines twelve times if such engines are reversible, and six times if such engines are non-reversible. Provided that in ships of Class VI, only one such air receiver shall be required.

(5) Every air receiver provided in such a ship shall be so designed and constructed as to withstand the maximum working stresses to which it may be subjected, with a factor of safety which is adequate having regard to—

- (a) its design and the material of which it is constructed; and
- (b) the working conditions under which it is intended to be used.

Without prejudice to the generality of the foregoing, every air receiver shall be capable of withstanding a test by hydraulic pressure to the extent set forth in the following table:—

Construction of Receiver	M. W. P. of Receiver	Pressure of Test
Riveted	Not over 100	$2 \times M.W.P.$
Riveted	Over 100 but not over 300	$1\frac{1}{2} \times M.W.P.$ + 50
Riveted	Over 300	M. W. P.
Fusion welded	Not over 100	$2 \times M. W. P.$
Fusion welded	Over 100	$1\frac{1}{2} \times M. W. P.$ + 50

In the foregoing table pressures are indicated in lb. per square inch and "M.W.P." means maximum working pressure.

(6) Every air bottle provided in a ship to which these Rules apply shall be of efficient design and shall be made of seamless steel tube with the ends of the bottle worked down from the tube or shall be of equally efficient construction. The bottle shall be annealed and shall be capable of withstanding a test by hydraulic pressure to twice its maximum working pressure.

(7) Every air receiver and air bottle provided in such a ship shall be fitted with means of access for purposes of inspection and shall be provided with efficient drains for the removal of oil and water, and with efficient relief valves to prevent over pressure. If the air receiver or air bottle can be isolated from the relief valve, it shall be fitted with one or more fusible plugs so as to discharge its contents in the event of fire.

(8) (a) Every air pressure pipe provided in such a ship and every fitting connected to such pipe, shall be capable of withstanding the maximum working stresses to which it may be subjected with a factor of safety which is adequate having regard to—

(i) the material of which it is constructed; and

(ii) the working conditions under which it is intended to be used.

(b) Without prejudice to the generality of foregoing, every such pipe and fitting shall be capable of withstanding a test by hydraulic pressure to twice its maximum working pressure.

(c) Every such pipe shall be properly supported. Provision shall be made which will keep the interior of the pipe free from oil and either will prevent the passage of flame from the cylinders of the engine to the pipe, or will protect the pipe from the effect of an internal explosion.

(9) If, in any ship to which these Rules apply, an air pressure pipe may receive air from any source at a higher pressure than it can withstand with an adequate factor of safety, an efficient reducing valve, relief valve and pressure gauge shall be fitted to such pipe.

#### *Engine Cooling Systems*

88. (1) In every ship to which these Rules apply, being a ship propelled by internal combustion machinery or provided with internal combustion engines for the maintenance of services essential for the safety of the ship or of persons on board, two pumps shall be provided each of which shall be capable of supplying adequate cooling water to such machinery or engines, as the case may be, and to any oil coolers or fresh water coolers fitted thereto. Provided that in ships of Class VI, only one such pump shall be required.

(2) If direct sea water cooling is used for any such machinery or engines, the sea water suctions shall be provided with strainers which can be cleaned without interruption of the supply of water.

(3) Means shall be provided for ascertaining whether the cooling systems are working properly and for preventing overpressure in any part thereof.

(4) The exhaust pipes and silencers of every internal combustion engine provided in a ship to which these Rules apply shall be efficiently cooled or lagged.

#### *Lubricating Oil Systems*

89. (1) In every ship to which these Rules apply, being a ship in which oil for the lubrication of the main engines is circulated under pressure, at least two pumps shall be provided each of which shall be adequate for circulating such oil. Provided that in ships of Class VI, only one such pump shall be required.

(2) Strainers shall be provided for straining the lubricating oil, and except in ships of Class VI, shall be capable of being cleaned without interrupting the supply of such oil.

(3) Means shall be provided for ascertaining whether the lubricating system is working properly, and for preventing overpressure in any part of the system. If the means of preventing overpressure is a relief valve it shall be in close-circuit.

*Oil Fuel Installations: (Boilers and Machinery)*

90. (1) In every ship to which these Rules apply, being a ship propelled by means of oil-fired boilers or internal combustion machinery, every double bottom compartment appropriated for the storage of oil fuel, not being a compartment situated at the extreme forward or after end of the ship, shall be fitted with a watertight centre division.

(2) Every oil fuel tank in such a ship shall be properly constructed and shall be provided with save-alls or gutters which will catch any oil which may leak from the tank. No such tank shall be situated directly above boilers or other heated surfaces. Without prejudice to the generality of the fore-going, every such tank shall be capable of withstanding a test by hydraulic pressure in the case of a storage tank, settling tank or service tank, equal to that of a head of water one foot greater than the greatest head to which the tank may be subject when in service, but in the case of a settling tank, to not less than 15 lbs. per square inch.

(3) The oil fuel carried in such a ship shall be effectively isolated from water ballast which may be carried therein. The pumping arrangements shall be such as will permit the oil fuel to be transferred from any storage tank or settling tank appropriated for oil fuel into any other storage tank or settling tank so appropriated. Provision shall be made to prevent the accidental discharge or overflow of oil overboard. If fresh water is stored in a tank adjacent to a tank appropriated for the storage of oil fuel a cofferdam shall be provided which will prevent contamination of the fresh water by the oil.

(4) In every such ship efficient means shall be provided for sounding every oil fuel tank therein and to prevent overpressure in such tank.

(5) In every such ship, an air pipe shall be led from every oil fuel tank to the open air, and the outlet therefrom shall be in such a position that there will be no danger of fire or explosion resulting from the emergence of oil vapour from the pipe when the tank is being filled. Every such pipe shall be fitted with a detachable wire gauze diaphragm. If such pipe also serves as an overflow pipe provision shall be made which will prevent the overflow from running into or near a boiler room, galley or other place in which it might be ignited.

(6) Every drain provided in such a ship for the purpose of removing water from oil fuel in storage or settling tanks or in separators shall be of the self-closing type.

(7) The oil fuel filling stations in every such ship shall be isolated from other spaces in the ship and shall be efficiently drained and ventilated. Provision shall be made which will prevent overpressure in any oil-filling pipe lines.

(8) In every such ship, every oil pressure pipe shall be made of seamless steel, and, if used for conveying heated oil, shall be situated in a conspicuous position above the platforms in well-lighted parts of the boiler room or engine room. Every such pipe and joint therein and every fitting connected to such pipe, shall be capable of withstanding a test by hydraulic pressure to 400 lbs. per square inch or to twice its maximum working pressure, whichever shall be the greater.

(9) In every such ship, every oil pipe, not being an oil pressure pipe, shall be made of steel and shall be led at such a height above the ship's inner bottom, if any, as will facilitate the inspection and repair of the pipe. Every such pipe and joint therein, and every fitting connected to such pipe, shall be capable of withstanding a test by hydraulic pressure to 50 lbs. per square inch or to twice its maximum working pressure whichever shall be the greater.

(10) In every such ship every steam heating pipe which may be in contact with oil shall be made of steel, and together with its joints, shall be capable of withstanding a test by hydraulic pressure to twice its maximum working pressure.

(11) In every such ship every suction pipe from any oil fuel tank situated above an inner bottom, and every oil fuel levelling pipe within a boiler room or engine room shall be fitted with a valve or cock secured to each tank to which the pipe is connected. Every such valve or cock fitted to an oil fuel suction pipe shall be so arranged that it may be closed both from the compartment in which it is situated and from a readily accessible position outside such compartment and not likely to be cut off in the event of fire in that compartment. Every such valve or cock fitted to an oil fuel levelling pipe shall be so arranged that it can be closed or opened from a readily accessible position above the bulkhead deck and not likely to be cut off by a fire in the compartment in which the pipe is situated.

If any oil tank filling pipe is not connected to an oil fuel tank at or near the top of the tank, it shall be fitted with a non-return valve or with a valve or cock secured to the tank to which it is connected and so arranged that it may be closed both from the compartment in which it is situated and from a readily accessible position outside such compartment and not likely to be cut off in the event of fire in that compartment.

(12) In every such ship every master valve at the furnace fronts which controls the supply of oil fuel to sets of burners shall be of a quick-closing type, and fitted in a conspicuous position and readily accessible. Provision shall be made to prevent oil from being turned on to any burner unless such burner has been correctly coupled up to the oil supply line.

(13) In every such ship every valve used in connection with the oil fuel installation shall be so designed and constructed as to prevent the cover of the valve chest being slackened back or loosened when the valve is operated.

(14) In every such ship every pump provided for use in connection with the oil fuel system shall be separate from the ship's feed pumps, bilge pumps and ballast pumps and the connections of any of such pumps, and shall be provided with an efficient relief valve which shall be in close circuit. Provision shall be made by which every oil fuel pressure pump and transfer pump may be stopped from a position outside the compartment in which such pump is situated.

(15) Every such ship shall be provided with not less than two oil fuel units, each comprising a pressure pump, filters and a heater. Such pump, filters and heater shall be of efficient design and substantial construction. Provision shall be made which will prevent overpressure in any part of the oil fuel units. The parts of such oil fuel units which are subject to oil pressure, and the joints thereof, shall be capable of withstanding a test by hydraulic pressure to 400 lbs. per square inch or twice their maximum working pressure, whichever shall be the greater. Any relief valves fitted to prevent overpressure in the oil fuel heater shall be in close circuit. If steam is used for heating oil fuel in bunkers, tanks, heaters or separators in any such ship, exhaust drains shall be provided to discharge the water of condensation into an observation tank.

(16) In every such ship save-alls or gutters shall be provided under every oil fuel pump, filter and heater to catch any oil which may leak or be spilled therefrom. Save-alls or gutters shall be provided in way of the furnace mouths to catch oil which may escape from the burners. Provision shall be made which will prevent oil which may escape from any oil fuel pump, filter or heater from coming into contact with boilers or other heater surfaces.

(17) Every oil fuel separator in such a ship shall be of efficient design and substantial construction. Provision shall be made which will prevent overpressure in any part thereof, and which will prevent the discharge of oil vapour therefrom into confined spaces.

(18) If, in any ship to which these Rules apply, being a ship propelled by means of oil-fired boilers, dampers are fitted to the funnel or boilers, provision shall be made for securing the dampers in the open position, and an indicator shall be provided to show whether the dampers are open or shut.

(19) For the purposes of this Rule the expression 'oil fuel tank' includes an oil storage tank, an oil fuel settling tank, an oil fuel service tank and an oil fuel overflow tank.

#### *Oil Fuel Installations: (Cooking Ranges)*

91. (1) If, in any ship to which these Rules apply, a cooking range is supplied with fuel from an oil tank, the tank shall not be situated in a galley, and the supply of oil to the burners shall be capable of being controlled from a position outside the galley. No range or burners shall be fitted which are designed to be operated by means of oil fuel having a flash point of less than 150°F.

(2) The tank shall be provided with an air pipe leading to the open air. The pipe shall be in such a position that there will be no danger of fire or explosion resulting from the emergence of oil vapour from the pipe when the tank is being filled. The pipe shall be fitted with a detachable wire gauze diaphragm.

(3) Efficient means shall be provided for filling every such tank and for preventing overpressure therein.

*Ventilation*

92. In every ship to which these Rules apply, every space in which an oil fuel tank or any part of an oil fuel installation is situated shall be adequately ventilated.

*Steering Gear*

93. (1) Every ship to which these Rules apply shall be provided with efficient main and auxiliary steering gear. Provided that auxiliary steering gear shall not be required if the ship's main steering gear is fitted with duplicate power units and duplicate connections up to the rudder stock.

(2) The auxiliary steering gear shall be capable of being rapidly brought into action and shall be of adequate strength, and of sufficient power to enable the ship to be steered at a navigable speed. The auxiliary steering gear shall be operated by power in any such ship which is fitted with a rudder stock of over 9 inches in diameter in way of the tiller.

(3) In every ship to which these Rules apply means shall be provided by which the ship can be steered from a position aft.

*Stores, Spare Gear and Tools*

94. Every ship of Classes I to VI inclusive, shall be provided with such stores, spare gear and tools as are sufficient, having regard to the intended service of the ship, to enable running repairs to the ship's boilers and machinery to be made while the ship is at sea.

**PART VII MISCELLANEOUS APPLICATION OF PART VII**

95. This Part applies to every ship to which these Rules apply.

*Compasses*

96. (1) (a) Every ship of Classes I and III shall be provided with three efficient magnetic compasses which shall be sited on the ship's centre line. One of such compasses shall be provided for use as a steering compass and shall be sited at the normal steering position, and another shall be provided for use as a standard compass and shall be sited near to the normal steering position and in a position from which the view of the horizon is least obstructed. A third such compass shall be provided at the after steering position, and shall, together with its gimbal units, be interchangeable with the steering compass.

Provided that a magnetic steering compass shall not be required if

- (i) the standard compass is of the reflector or projector type and is equipped with a device by which it may be read from the normal steering position.
- (ii) the standard compass is interchangeable with the after steering compass; and
- (ii) a card of a gyroscopic compass or of a repeater thereof can be read from the normal steering position.

(b) Every magnetic compass provided in such a ship shall be mounted on a binnacle. Provided that the after steering compass may be mounted on a pedestal.

(2) Every ship of Classes II, IV, V and VI, shall be provided with two efficient magnetic compasses sited on the ship's centre line, one of which shall be for use as a steering compass and shall be sited at the normal steering position, and the other of which shall be for use as a standard compass, and shall be sited near to the normal steering position and in a position from which the view of the horizon is least obstructed. Each of such compasses shall be mounted on a binnacle.

*Depth Sounding Devices*

97. (1) Every ship of Classes I to V inclusive, shall be provided with an efficient mechanical depth-sounding device operated by means of a line, and with such spare parts as are sufficient, having regard to the type of the device and to the intended service of the ship, to enable the device to be maintained in working order while the ship is at sea. Provided that a mechanical depth-sounding device shall not be required in any ship of class II, IV, or V which is under 1,600 tons.

(2) Every ship of Classes I to VI inclusive, shall be provided with two hand lead-lines, each at least 25 fathoms long, and each with a lead weighing at least 7 lbs.

#### *Anchors and Chain Cables*

98. Every ship to which these Rules apply shall be provided with such anchors and chain cables as are sufficient in number, weight and strength, having regard to the size and intended service of the ship.

#### *Hawsers and Warps*

99. Every ship to which these Rules apply shall be provided with such hawsers and warps as are sufficient in number and strength, having regard to the size and intended service of the ship.

#### *Means of Escape*

100. (1) Every ship to which these Rules apply, shall be provided with such door ways, stairways, ladderways and other means of escape as will provide readily accessible means of escape for all persons in the ship. The means of escape shall be so designed and constructed as to be capable of being easily used by the persons for whom they are intended. The number and width of such means of escape shall be sufficient having regard to the number of persons by whom they may be used and shall not pass through any doorway which may be closed by a door required by these Rules to be watertight.

(2) In every ship of Classes I to V at least two such means of escape shall be provided in each portion of a between decks above the bulkhead deck falling within a main vertical zone, and one of the means of escape provided in each such portion shall give access to a stairway leading upwards from the between decks. Provided that in ships of Class I the means of escape from the lifeboat embarkation deck shall not be required to give access to a stairway leading upwards from that deck.

(3) In every ship of Classes I and III such means of escape shall lead to the lifeboat embarkation deck.

(4) In every ship of Classes II, IV and V such means of escape shall lead to the lifeboat embarkation deck and to an open deck of sufficient area; having regard to the number of persons whom the ship may carry.

(5) In every ship of Class VI such means of escape shall lead to an open deck of sufficient area, having regard to the number of persons whom the ship may carry.

#### *Guard Rails, Stanchions and Bulwarks*

101. In every ship to which these Rules apply, bulwarks or guard rails shall be provided on every deck to which any persons may have access. Such bulwarks or guard rails, together with stanchions supporting the guard rails, shall be so placed, designed and constructed and in particular shall be of such a height above the deck, as to prevent any person who may have access to that deck from accidentally falling therefrom. Any freeing ports fitted in such a bulwark shall be covered by a grid or bars which will prevent any person from falling through the port.

#### *Alternative construction, Equipments and Machinery*

102. Where these Rules require that the hull or machinery of a ship shall be constructed in a particular manner, or that particular equipment shall be provided, or particular provision shall be made, the Central Government may allow the hull or machinery of the ship to be constructed in any other manner, or any other equipment to be provided or other provision made, if it is satisfied that other construction or equipment, or other provision, is at least as effective as that required by these Rules.

### FIRST SCHEDULE

#### CALCULATION OF MAXIMUM LENGTH OF WATERTIGHT COMPARTMENTS

##### *Part I*

1. *General.*—(1) For the purposes of this Schedule, except where otherwise specified,

(a) all liner measurements shall be in feet; and

(b) all volumes shall be in cubic feet and shall be calculated from measurements taken to moulded lines.

(2) In this Schedule the Symbol 'L' denotes the length of the ship.

(3) In this Schedule the expression "passenger spaces" shall include galleys, laundries and other similar spaces provided for the service of passengers, in addition to space provided for the use of passengers.

2. *Permissible Length.*—Subject to the provisions of paragraph 6 of this Schedule the length of a compartment shall not exceed its permissible length. The permissible length of a compartment having its centre at any point shall be the product of the floodable length at that point and the factor of subdivision of the ship.

*Part II—Ships of Classes I and II*

3. *Assumptions of Permeability.*—The assumptions of permeability which shall be taken into account in determining the floodable length at any point in ships to which this Part of this Schedule applies shall be as follows:—

(a) *Machinery space:*—

(i) In the case of ships not propelled by internal combustion engines the assumed average permeability throughout the machinery space shall be determined by the following formula:—

$$80 \div 12.5 \frac{(a - c)}{v} \text{ where}$$

$a$  = volume of the passenger spaces and crew spaces below the margin line within the limits of the machinery space;

$c$  = volume of the between deck spaces below the margin line within the limits of the machinery space which are appropriated to cargo, coal or stores; and

$v$  = volume of the machinery spaces below the margin line.

(ii) In the case of ships propelled by internal combustion engines the average permeability throughout the machinery space shall be taken as 5 greater than that given by the aforesaid formula.

(iii) In any case in which the average permeability throughout the machinery space, as determined by detailed calculation, is less than that given by the aforesaid formula, the calculated value may be substituted. For the purposes of such calculation, the permeability of passenger spaces and crew spaces shall be taken to be 95, that of all spaces appropriated for cargo, coal or stores shall be taken to be 60 and that of double bottom, oil fuel and other tanks forming part of the structure of the ship shall be taken to be 95 or such lesser figure as the Central Government may approve in the case of that ship.

(b) *Portions before and abaft the machinery space:*

(i) the assumed average permeability throughout the portions of the ship before or abaft the machinery space shall be determined.

(a) by the following formula:

$$63 \div \frac{a}{v} \text{ where}$$

$a$  = volume of the passenger spaces and crew spaces which are situated below the margin line before or abaft the machinery space, as the case may be, and

$v$  = volume of the portion of the ship below the margin line before or abaft the machinery space, as the case may be; or

(b) if the Central Government so determines in the case of any ship— at any time not later than 40 days after a Surveyor has received a plan of the ship showing the watertight subdivision thereof, by detailed calculation for the purpose of which the permeability of spaces shall be assumed to be as follows:

Passenger spaces	95
Crew Spaces	95
Spaces appropriated to machinery	80
Spaces appropriated to cargo, coal, stores or baggage rooms	60
Tanks forming part of the structure of the ship and double bottoms.	

95, or such lesser figure as the Central Government may permit in the case of any ship.

(ii) For the purposes of this paragraph a space within a passenger space or crew space shall be deemed to be a part thereof unless it is appropriated for other purposes and is enclosed by permanent steel bulkheads.

4. Factor of Subdivision.—(1) Subject to the provisions of sub-paragraph (4) of this paragraph, in the case of ships the length of which is 430 feet or more, the factor of sub-division F shall be determined by the following formula:—

$$F = A - \frac{(A - B)(C_s - 23)}{100}$$

where A and B are respectively determined in accordance with the provisions of sub-paragraph (5) of this paragraph and  $C_s$  is the criterion numeral determined in accordance with the provisions of paragraph 5 of this Schedule. Provided that where in the case of any ship the factor F is less than 4 and the Central Government is satisfied that it is impracticable to apply the factor F in determining the permissible length of a compartment appropriated for machinery, the Central Government may allow an increased factor not exceeding .4 to be applied to that compartment.

(2) Subject to the provision of sub-paragraph (4) of this paragraph, in the case of ships the length of which is less than 430 feet but not less than 260 feet having a criterion numeral of not less than

$$\frac{4691}{17} - \frac{10L}{17}$$

(hereinafter in this paragraph referred to as S) the factor of subdivision F shall be determined by the following formula:—

$$F = I - \frac{(I - B)(C_s - S)}{123 - S}$$

where B is the factor determined in accordance with the provisions of sub-paragraph (5) of this paragraph and C is the criterion numeral determined in accordance with the provisions of paragraph 5 of this Schedule.

(3) In the case of the ships the length of which is less than 430 feet but not less than 260 feet and having a criterion numeral less than S or in the case of ships the length of which is less than 260 feet the factor of subdivision shall be unity.

(4) In the case of a ship of any length which is intended to carry a number of passengers exceeding 12 but not exceeding

$$\frac{L^2}{7000} \text{ or } 50$$

whichever is the lower, the factor of subdivision shall be determined in the manner provided in sub-paragraph (3) of this paragraph.

(5) For the purposes of this paragraph the factors A and B shall be determined by the following formulae:—

$$A = \frac{190}{L - 138} \div .18 \text{ (Where } L = 430 \text{ and upwards)}$$

$$B = \frac{100}{L - 138} \div .18 \text{ (Where } L = 260 \text{ and upwards)}$$

##### 5. Criterion of Service.

The criterion numeral for ships to which this Part applies shall be determined by the following formulae:—

when  $P_i$  is greater than P

$$C_s = 72 \left( \frac{(M \div 2P_i)}{\left( \frac{V \div P_i}{P} - 1 \right)} \right)$$

and in all other cases

$$C_s = 72 \left( \frac{(M \div 2P)}{\left( \frac{V}{P} - 1 \right)} \right)$$

where:

$C_s$  = the criterion numeral;

$M$  = the volume of the machinery space, with the addition thereto of the volume of any permanent oil fuel bunkers which may be situated above the inner bottom and before or abaft the machinery space;

$P$  = the volume of the passenger spaces and crew spaces below the margin line;

$V$  = volume of the ship below the margin line;

$N$  = number of passengers which the ship is intended to carry; and

$P_i = .6 LN$

Provided that:

- (a) where the value of  $.6LN$  is greater than the sum of  $P$  and the whole volume of the passenger spaces above the margin line, the figures to be taken as  $P_i$  shall be that sum or  $.4LN$  whichever is the greater;
- (b) value of  $C_s$  less than 23 shall be taken as 23; and
- (c) values of  $C_s$  greater than 123 shall be taken as 123.

6. *Special Rules for Subdivision.*—(1) Compartments exceeding the permissible length:

- (a) A compartment may exceed its permissible length provided that the combined length of each pair of adjacent compartments to which the compartment in question is common does not exceed either the floodable length of twice the permissible length, whichever is the less.
- (b) If one compartment or either of such pairs of adjacent compartments is situated inside the machinery space, and the other compartment thereof is situated outside the machinery space, the combined length of the two compartments shall be adjusted in accordance with the mean average permeability of the two portions of the ship in which the compartments are situated.
- (c) Where the lengths of the two adjacent compartments are governed by different factors of sub-division, the combined length of the two compartments shall be determined proportionately.
- (d) Where in any portion of a ship bulkheads required by these Rules to be watertight are carried to a higher deck than in the remainder of the ship, separate margin lines may be used for calculating the floodable length of that portion of the ship, if—
  - (i) the two compartments adjacent to the resulting step in the bulkhead deck are each within the permissible length, corresponding to their respective margin lines, and, in addition, their combined length does not exceed twice the permissible length determined by reference to the lower margin line of such compartments;
  - (ii) the sides of the ship are extended throughout the ship's length to the deck corresponding to the uppermost margin line and all openings in the shell plating below that deck throughout the length of the ship comply with the requirements of Rule 33 of these Rules as if they were openings below the margin line.

(2) *Additional sub-division at forward end.*—In ships 430 feet in length and upwards, the watertight bulkhead next abaft the collision bulkhead shall be fitted at a distance from the forward perpendicular which is not greater than the permissible length appropriate to a compartment bounded by the forward perpendicular and such bulkhead.

(3) *Steps in bulkheads.*—If a bulkhead required by these Rules to be watertight is stepped it shall comply with one of the following conditions:

- (i) In ships having a factor of sub-division not greater than .9, the combined length of the two compartments separated by such bulkhead shall not exceed 90 per cent of the floodable length or twice the permissible length whichever is the less. In ships having a factor of sub-division greater than .9, the combined length of the two compartments shall not exceed the permissible length.

- (ii) Additional sub-division is provided in way of the step to maintain the same measure of safety as that secured by a plane bulkhead; or
- (iii) The compartment over which the step extends does not exceed the permissible length corresponding to a margin line taken 3 inches below the step.

(4) *Recesses in bulkheads.*—If any part of a recess lies outside vertical surfaces on both sides of the ship situated at a distance from the shell plating equal to one-fifth of the breadth of the ship and measured at right angles to the centre line at the level of the deepest sub-division load water line, the whole of such recess shall be deemed to be a step in a bulkhead for the purposes of sub-paragraph (3) of this paragraph.

(5) *Equivalent plane bulkheads.*—Where a bulkhead required by these Rules to be watertight is recessed or stepped an equivalent plane bulkhead shall be assumed in determining the sub-division.

(6) *Minimum spacing of bulkheads.*—If the distance between two adjacent bulkheads required by these Rules to be watertight, or their equivalent plane bulkheads, or the distance between transverse planes passing through the nearest stepped portions of the bulkheads, is less than .03L : 10 feet, or 35 feet, or .1L, whichever is the least, only one of those bulkheads shall be regarded as forming part of the sub-division of the ship.

(7) *Allowance for local sub-division.*—Where in any ship a main transverse watertight compartment contains local sub-division and the Central Government is satisfied that, after any assumed side damage extending over a length of .03L : 10 feet, or 35 feet, or .1L, whichever is the least, the whole volume of the main compartment will not be flooded, a proportionate allowance may be made in the permissible length otherwise required for such compartment. In such a case the volume of effective buoyancy assumed on the undamaged side shall not be greater than that assumed on the damaged side.

### Part III

Ships of Class II which are permitted by the Central Government in exercise of its power under paragraph 5 of Rule 6 of the Indian Merchant Shipping (Life Saving Appliances) Rules to carry persons in excess of the lifeboat capacity provided on board.

7. *General Rules for Sub-division.*—Subject to the modifications set forth in this Part the maximum length of compartments in ships to which this Part applies shall be determined as if they were ships to which Part II applies.

8. *Assumption of Permeability in Portions before and abaft the Machinery space.*—In ships to which this Part applies the assumed average permeability throughout the portions of the ship before and abaft the machinery space shall be determined—

(a) by the following formula:—

$$95 = 35 \frac{b}{v} \text{ where}$$

b=the volume of the spaces which are situated below the margin line before or abaft the machinery space, as the case may be, and above the tops of floors, inner bottom, or peak tanks, and which are appropriated for use as coal or oil fuel bunkers, store rooms, baggage rooms, mail rooms, chain lockers or fresh water tanks and of spaces appropriated for cargo if the Central Government is satisfied that the greater part of the volume of the space is intended to be occupied by cargo; and

v—the volume of the portion of the ship below the margin line before or abaft the machinery space, as the case may be; or

(b) If the Central Government so determine in the case of any ship at any time not later than 40 days after a Surveyor has received a plan

of the ship showing the watertight sub-division thereof, by detailed calculation for the purpose of which the permeability of spaces shall be assumed to be as follows:—

Passenger spaces	95
Crew spaces	95
Spaces appropriated to machinery	80
Spaces appropriated to bunker coal, store or baggage rooms.	60
Spaces appropriated to cargo, tanks, forming part of structure of the ship and doubled bottoms	95 or such lesser figure as the Central Government may permit in the case of any ship.

9. *Factor of Sub-division.*—(1) Subject to the provisions of this paragraph, the factor of sub-division of ships to which this Part of this Schedule applies shall be the factor determined in the manner provided in paragraph 4 of this Schedule, or .5 whichever is the less. Provided that if the Central Government is satisfied in the case of any ship the length of which is less than 300 feet that is impracticable to apply that factor to any compartment, it may allow a higher factor to be applied to that compartment.

(2) If in the case of any ship to which this Part applies the Central Government is satisfied that the quantity of cargo to be carried in the ship will be such as to render impracticable the application abaft the collision bulkhead of a factor of sub-division not exceeding .5, the factor of sub-division of the ship shall be determined as follows:—

(a) In the case of the ships the length of which is 430 feet and upwards, by the formula:—

$$F = A - \frac{(A - BB)}{100} \frac{(C_s - 23)}{123 - S_1}$$

(b) In the case of ships the length of which is less than 430 feet but not less than 180 feet, and having a criterion numeral not less than  $S_1$ , by the formula:

$$F = 1 - \frac{(1 - BB)}{123 - S_1} \frac{(C_s - S_1)}{1950 - 4L}$$

For the purpose of the above formulae:

$$A = \frac{190}{L - 198} \div = .18 \text{ (where } L > 430 \text{ and upwards)}$$

$$BB = \frac{57.6}{L - 108} \div = .20 \text{ (where } L = 180 \text{ and upwards)}$$

$$S_1 = \frac{1950 - 4L}{10} \div$$

$C_s$  = the criterion numeral determined in accordance with paragraph 5 of this Schedule where  $P$ , has the following values:

- (a) .6LN or 125N whichever is the greater for berthed passengers.
- (b) 125 N for unberthed passengers.
- (c) in the case of ships the length of which is less than 430 feet but not less than 180 feet and having a criterion numeral less than  $S_1$ , and of all ships the length of which is less than 180 feet, the factor of sub-division shall be unity.

#### Part IV—Ships of Classes III to V inclusive

10. Ships shall be as efficiently sub-divided as is possible having regard to the nature of the service for which they are intended. The requirements respecting sub-division are given in the following rules.

The degree of sub-division provided by these requirements varies with the length of the ship and with the services, in such manner that the highest degree of sub-division corresponds with the ships of greatest length primarily engaged in the carriage of passengers.

11. The method of sub-division shall follow Part II of this Schedule:

Provided that the Rules of the said part of the above Schedule are applied subject to the following:—

(a) Uniform average permeability shall be determined according to paragraph 3(b) of Part II of this Schedule provided that where it is shown to the satisfaction of the Central Government that the permeability of one or more compartments of the portion of the ship before (or abaft) the machinery space is less than that by the formula  $63 \div 35$ , the calculated values may be substituted for each of the compartments in that portion of the ship. For the purpose of such calculations, the permeability of passenger spaces shall be taken as 95, that of spaces containing machinery as 80, that of all cargo, coal and store spaces as 60, and that of double bottom oil fuel and other tanks at such value as may be approved in each case by the Central Government.

(b) The Criterion of Service Numeral shall be determined by the following formula and not by those given in para 5 of Part II of this Schedule

$$C_s = 72 \frac{M + 3/2 P_i}{V + P_i - P}$$

Where  $M$  = the volume of the machinery space with the addition thereto the volume of any permanent oil fuel bunkers which may be situated above the inner bottom and before or abaft the machinery space.

$P$  = the whole volume of the passenger spaces below the margin line as defined.  $V$  = the whole volume of the ship below the margin line.

$$P_i = P - 7A - 4L N$$

Where  $A$  = the total area in square feet of the spaces measured in determining the number of unberthed passengers to be carried above the margin line including the area of any compartment containing more than six berths. The area of the spaces occupied by galleys, mess room, latrines, wash places, baggage and storerooms, lavatories, hospitals, and the airing spaces for between deck passengers shall not be included.

Where  $L$  = the length of the ship, as defined in Part I of this Schedule.  $N$  = the total number of berths for berthed passengers carried above the margin line, a berthed passenger being defined as one accommodated in a compartment containing not more than six berths.

(c) the provisions of sub-paragraph 4(3) of Part II of this Schedule shall apply also to ships of whatever length which are certified to carry total number of passengers not exceeding  $L_2$  (in feet) or 280,

whichever is the less, of which the number of berthed passengers shall not exceed  $L_2$  (in feet) or 50, whichever is the less. In

ships of 430 feet in length and upwards to which this paragraph applies, the sub-division abaft the fore peak shall be governed by the factor unity.

(d) In sub-para 6(2), the words 'floodable length' shall be substituted for 'permissible length'.

12. In order that the required degree of sub-division shall be maintained, a load line corresponding to the approved sub-division draft shall be assigned and marked on the ship's sides. A ship having spaces which are especially adapted for the accommodation of passengers and the carriage of cargo alternately may, if the owners desire, have one or more additional load line assigned and marked to correspond with the sub-division drafts which the Central Government may approve for the alternative service conditions. The freeboard corresponding to each approved sub-division load line, and to conditions of

service for which it is approved, shall be clearly indicated on the Safety Certificate. Sub-division load lines shall be marked and recorded in the manner provided in Rule 36 but load lines under these Rules shall be distinguished by the notation D1, D2, D3, etc.

#### Part V—Ships of Class VI

13. Subject to the modifications as set forth in this Part the maximum length of compartments in ships to which this Part applies shall be determined as if they were ships to which Part II applies.

##### Permeability

14. In ships to which this Part applies the assumed average permeability shall be as follows:

(a) of the machinery space		
(i) In ships propelled by internal combustion engines		85
(ii) In all other ships		80
(b) of spaces other than the machinery space		95

##### Factor of Sub-Division

15. The factor of sub-division to which this Part applies shall be as follows:—

Length of ship in feet over 300.	Factor of sub-division.
	.5 for compartments in the machinery space and forward thereof. Unity for all other compartments.
Over 200 but not over 300	.5 for compartments forward of machinery space. Unity for all other compartments.
200 and under	Unity.

### SECOND SCHEDULE

#### STABILITY IN DAMAGED CONDITION

1. *Calculation of Stability in Damaged Condition.*—The sufficiency of intact stability of every ship to which Part II of these Rules applies shall be determined by calculation which has regard to the design and construction of the ship and the damaged compartments, and which is in accordance with the following assumptions:—

- (a) the ship shall be assumed to be in the worst condition as regards stability which is likely to be experienced having regard to the intended service of the ship;
- (b) the volume permeabilities and surface permeabilities shall be assumed to be as follows:

Spaces	Permeability
Appropriated to cargo, coal or stores .. .. ..	60
Appropriated to accommodation for passengers and crew .. ..	95
Appropriated to machinery .. ..	85
Appropriated to liquids .. ..	60 or 95, whichever results in the more onerous requirements.

(c) The minimum extent of damage shall be assumed to be as follows:

- (i) Longitudinal extent .. 10 feet plus 3 per cent of the length of the ship, or 35 feet, or 10 per cent of the length of the ship, whichever is the least.

- (ii) Transverse extent ... 20 per cent of the breadth of the ship. (measured inboard from the ship's side at right angles to the centre line at the level of the deepest sub-division load water line).
- (iii) Vertical extent ... from the top of the double bottom upto the margin line.
- (iv) If any damage of lesser extent than that indicated in the foregoing sub-paragraphs (i), (ii) and (iii) would result in a more severe condition regarding heel or loss of metacentric height, such damage shall be assumed for the purpose of the calculation.
- (d) Where the ship is fitted with decks, inner skins or longitudinal bulkheads of sufficient tightness to restrict the flow of water, regard shall be had to such restrictions in the Calculation.

**2. Sufficiency of Stability in Damaged Condition.**—The intact stability of the ship shall be deemed to be sufficient if the aforesaid calculation shows that, after the assumed damage and after equalisation measures have been taken, the final condition of the ship is as follows:—

- (i) in the event of symmetrical flooding the metacentric height is positive;
- (ii) in the event of unsymmetrical flooding the heel does not exceed seven degrees;
- (iii) in the event of unsymmetrical flooding the margin line is not submerged.

### THIRD SCHEDULE

#### CONSTRUCTION OF WATERTIGHT BULKHEADS, ETC.

##### Part I—Ships of Classes I and III

**1. Strength and Construction.**—(1) Every bulkhead and other portion of the internal structure forming part of the watertight sub-division of the ship shall be of such strength and so constructed as to be capable of supporting, with an adequate margin of resistance, the pressure due to a head of water upto the margin line.

(2) Every such bulkhead and portion shall be constructed of mild steel, and, if of riveted construction, shall comply with the requirements of paragraphs 2 to 6 inclusive of this Schedule, and if of welded construction shall not be of less strength, stiffness or efficiency than if it had been riveted and had complied with such requirements.

**2. Bulkheads.**—(1) Every bulkhead required by these Rules to be watertight shall be constructed with plating of thicknesses not less than those indicated in Table 1 of Part IV of this Schedule. If a bulkhead is at the end of a stokehold space in a coal burning ship, the lower part of the bulkhead plating to a height of at least 24 inches above the stokehold floor shall be at least .1 inch thicker than is required by the said Table. If a bulkhead is at the end of a coal bunker space, the lowest stoke thereof shall be at least 36 inches high and .1 inch thicker than is required by the said Table. In all other bulkheads, the lowest stoke shall be at least .04 inch thicker than is required by the said Table and any limber plates shall be at least .1 inch thicker.

(2) Every boundary angle shall be at least .1 inch thicker than the thickness required by the said Table for the bulkhead plating to which it is attached.

(3) (a) Save as provided in Table 3 of Part IV of this Schedule, every such bulkhead shall be fitted with stiffeners which shall have brackets or lug end connections. If the stiffeners are spaced 30 inches apart, they shall comply with such of the specifications in Tables 2 and 3 of the said Part as apply to them in the circumstances. Provided that other forms of stiffeners may be used if they afford not less strength and stiffness than the stiffeners indicated in the said Tables. If any stiffeners are spaced otherwise than 30 inches apart on such a bulkhead, their strength and stiffness shall be increased or decreased as the case may be, in direct proportion to their distance apart. Stiffeners shall not be spaced more than 24 inches apart on a collision bulkhead, or more than 36 inches apart on any other bulkhead.

(b) The lower end of each stiffener shall be attached to the shell plating to the inner bottom plating or to horizontal plating which will support it properly.

(c) At each deck level which forms the top of a system of stiffeners platting shall be so provided as to ensure horizontal rigidity in the bulkhead.

(d) In the case of bracketed hold stiffeners the lower bracket or its connecting angle shall extend over the floor adjacent to the bulkhead and the upper bracket shall be connected to an angle which extends over the beam, space, or other equally effective means shall be adopted for securing structural rigidity.

(e) Where stiffeners are cut in way of watertight doors in the lower part of a bulkhead, the opening shall be properly framed and bracketed, and a tapered web plate or buttress, stiffened on its edge, shall be fitted at each side of the door from the base of the bulkhead to above the door opening.

(f) All brackets, lugs and other end connections for stiffeners shall comply with the requirements of Table 4 of Part IV of this Schedule.

(4) (a) The rivets in seams and connections of plating and boundary bars of all bulkheads required by these Rules to be watertight shall be spaced not more than  $4\frac{1}{2}$  diameters apart centre to centre, except in the case of the flange of a boundary angle, being the flange connected to the inner bottom plating, shell plating or deck plating, in which case they shall be spaced 5 diameters apart centre to centre.

(b) Boundary angles fitted more than 35 feet below the bulkhead deck shall be double riveted in both flanges except on parts of a bulkhead within a double bottom, and the vertical connection of plates so fitted shall be double riveted.

(c) The rivets connecting stiffeners, having bracket end connections, to bulkhead plating shall be spaced not more than 7 diameters apart centre to centre. All other stiffeners shall be connected to the bulkhead plating by rivets spaced not more than 4 diameters apart centre to centre for 15 per cent of the length of the stiffeners at each end thereof and not more than 7 diameters apart centre to centre elsewhere.

(d) Where frames or beams pass through a bulkhead required by these Rules to be watertight, the bulkhead shall be made watertight without the use of wood or cement.

3. *Watertight deck, Steps and Flats.*—(1) The horizontal plating of deck, steps and flats required by these Rules to be watertight shall be at least .04 inch thicker than that required for watertight bulkheads at corresponding levels.

(2) The beams of such decks, steps and flats shall be of sizes indicated for stiffeners spaced 30 inches apart in Table 3 of Part IV of this Schedule. Provided that beams divided into portions which are bracketed at each end may be of the sizes indicated for such stiffeners in Table 2 of Part IV of this Schedule. If any beams are spaced otherwise than 30 inches apart, their strength and stiffness shall be increased or decreased, as the case may be, in direct proportion to their distance apart.

For the purposes of the said Tables the greatest distance between the points of support shall be deemed to be the length of the beam. Provided that, if a beam is bracketed, the length thereof for the purposes of the said Table 3 shall be reduced by the width of the brackets. The distance from the bulkhead deck to the deck, step or flat concerned, minus half the length of the beam, shall be deemed to be the height for the purposes of the said Tables.

(3) Adequate supports for such beams shall be provided by bulkheads, or by girders pillared where necessary, and the rivet connections of the pillars shall be sufficient to withstand the load due to water pressure.

(4) Where frames pass through a deck, step or flat required by these Rules to be watertight, such deck, step or flat shall be made watertight without the use of wood or cement.

4. *Watertight recesses and trunkways.*—Every recess and trunkway required by these Rules to be watertight shall be so constructed as to provide strength and stiffness at all parts not less than that required for watertight bulkheads at a corresponding level.

5. *Watertight tunnels.*—(1) Every tunnel required by these Rules to be watertight shall be constructed with plating of thicknesses not less than those indicated in Table I of Part IV of this Schedule.

(2) Every such tunnel shall be fitted with stiffeners which, if spaced 36 inches apart, shall comply with such of the specifications in Table 5 of Part IV of this Schedule as apply to them in the circumstances. Provided that other forms of stiffeners may be used if they afford not less strength and stiffness than the stiffeners indicated in the said Table. If any stiffeners are spaced otherwise than 36 inches apart on such a tunnel their strength and stiffness shall be increased or decreased as the case may be in direct proportion to their distance apart. The feet of all stiffeners, however spaced, shall overlap the tunnel base angle, and shall be attached thereto.

8. *Watertight inner skins*.—Every inner skin required by these Rules to be watertight shall be of such strength and construction as will enable it to withstand a head of water upto the margin line.

#### PART II—Ships of Classes II, IV and V

7. *General*.—Subject to the modifications set forth in this Part I of this Schedule shall apply in relation to ships of Classes II, IV and V as it applies in relation to ships of classes I and III.

8. *Bulkheads, etc.*—(1) Every riveted portion of the ship's internal structure required by these Rules to be watertight shall be constructed as follows:

- (a) In ships not exceeding 150 feet in length, in accordance with Tables 1A, 2A, 3A, 4 and 5A of Part IV of this Schedule.
- (b) In ships 250 feet in length and upwards, in accordance with Tables 1, 2, 3, 4 and 5 of Part IV of this Schedule.
- (c) In ships between 150 feet and 250 feet in length, in manner determined by interpolation between the two foregoing standards. Provided that in ships of any length the sub-division of which is determined in accordance with sub-paragraph (1) of paragraph 9 of the Second Schedule to these Rules, every riveted portion of such internal structure may be constructed in accordance with Tables 1A, 2A, 3A, 4 and 5A of Part IV of this Schedule.

(2) Any bulkheads required by these Rules to be watertight in ships not exceeding 150 feet in length and in ships the sub-division of which is determined in accordance with sub-paragraph (1) of paragraph 9 of the Second Schedule to these Rules may, if the stiffeners comply with the specifications in Table 3B of Part IV of this Schedule, be fitted with stiffeners not having bracket or lug end connections.

#### PART III—Ships of Class VI

9. *General*.—Subject to the modifications set forth in this Part of this Schedule, Part I of this Schedule shall apply in relation to ships of Class VI, as it applies in relation to ships of Class I.

10. *Bulkheads, etc.*—(1) Any bulkheads required by these Rules to be watertight may be fitted with stiffeners not having bracket or lug end connections.

(2) Every riveted portion of the ship's internal structure required by these Rules to be watertight shall be constructed in accordance with such of the provisions of Tables 1A, 2A, 3A, 3B, 4 and 5A of Part IV of this Schedule as apply to it in the circumstances.

### FOURTH SCHEDULE

#### PROVISION FOR CINEMATOGRAPH EXHIBITIONS

1. *Exits from public rooms*.—Any public room in which cinematograph exhibitions are intended to be given shall be provided with means of escape which are remote from the projector and are adequate having regard to the number of persons who may be in the audience. The doors by which such escape may be made shall be clearly marked with the word 'Exit' and shall be so constructed as easily to open outwards. The seating shall be arranged in rows for the exhibitions so as not to interfere with free access to such doors.

2. *Storage of films*.—(1) There shall be provided in the ship:

- (a) a storage room bounded by 'A' class divisions; or

(b) a locker constructed of material capable of resisting fire as efficiently as an 'A' class division, appropriated solely for the storage of cinematograph films intended to be exhibited in the ship. Such storage room or locker, as the case may be, shall, whenever practicable, be situated on an upper deck and in a position remote from passenger spaces. It shall be provided with an outlet to the open air with an area of not less than one square inch for each 5 pounds weight of film that may be stored in the room or locker.

(2) A metal spool box, with means of closure which will prevent the passage of flame into the box, shall be provided for the storage and projection of each spool of film, and shall be capable of being attached to and removed from the projector without being opened. Metal containers with self-closing lids shall be provided in sufficient number for the storage of the spool boxes.

3. *Projector rooms and Cabinets.*—(1) If the ship is provided with a film projector intended for giving cinematograph exhibitions in a public room therein, not being a portable projector, there shall be provided in the ship:

(a) a permanent projector room, which shall be bounded by 'A' class divisions, and to which access shall be obtained from a space in which the audience are not accommodated, and shall, whenever practicable, be from the open air, or

(b) a fixed or portable, projector cabinet made wholly of, or lined with, incombustible material. In the following sub-paragraphs of this paragraph the expression 'projector room' shall be deemed to include a projector cabinet.

(2) All fittings in the projector room shall be made wholly of, or lined with, incombustible material. The projector room shall be large enough to enable the projector to be properly operated.

(3) Every entrance to a projector room shall be provided with a self-closing door which shall open outwards and shall be well-fitting and as effective in resisting fire as the structure in which it is fitted.

(4) There shall not be provided more than two openings in the structure of the projector room for each projector in the room, whether for the projection of light or the observation of the screen. The openings shall be no larger than is required for such purposes and shall be glazed with stout plate glass.

(5) Means shall be provided which will ensure an adequate supply of fresh air within the projector room. The ventilation openings shall be covered with wire netting of mesh not less than 16 per square inch. The ventilation shall, wherever practicable, be to the open air.

(6) The openings in the projector room for projection, observation and ventilation purposes shall be fitted with close fitting self-closing shutters capable of being simultaneously released. Means for releasing the shutters shall be provided both inside and outside the projector room. All openings through which cables pass into the projector room shall be sealed in a manner which will prevent the passage of smoke. The projector room and the doors and shutters thereof shall be so constructed that when the doors and shutters are closed the passage of smoke from the projector room will be prevented.

(7) Separate electrical circuits shall be provided for the illuminant of the projector and for the lighting of the projector room. The supply of electrical energy for the illuminant of the projector shall be capable of being controlled by two switches situated respectively inside the projector room and outside the projector room at a position sufficiently distant therefrom to enable the switch to be safely operated despite a fire in the projector room.

(8) Devices shall be provided which will prevent the films from coming into contact with any electric lamp, terminal or other electrical fitting within the projector room. All switches and fuses in the projector room shall be completely protected, and all resistances in that room shall be of a design which will prevent overheating.

4. *Projectors.*—Every projector, not being a portable projector, provided in the ship and intended for giving cinematograph exhibitions in a public room therein shall be firmly fixed in position and shall rest upon supports constructed of incombustible material. The projector shall be fitted with a metal shutter which can be readily inserted by hand between the projector lamp and the

film-gate, and with a second shutter so arranged as automatically to cut off the film-gate from the illuminant when the projector stops. The filmgate shall be of substantial construction and shall afford sufficient heating surface to dissipate the heat which may be engendered by the illuminant. The opening for the film shall be sufficiently narrow to prevent flames travelling upwards or downwards from the light-opening.

5. *Exhibitions on deck.*—If the ship is provided with a projector, not being a portable projector, intended for giving cinematograph exhibitions on an open deck, and the illuminant of such projector is not hermetically sealed in a glass bulb, the provisions of paragraphs 3 and 4 of this Schedule shall apply to the ship and to the projector as they apply in the case of a ship provided with a projector, not being a portable projector, intended for giving cinematograph exhibitions in a public room.

6. *Portable projectors.*—(1) Portable projectors and the illuminant thereof shall be enclosed in casing constructed of incombustible material. There shall be no openings in such casing other than those necessary for the proper operation of the projector and for ventilation of the projector casing.

(2) Spool boxes for use with portable projectors shall be so designed that they cannot contain a reel exceeding 10 inches in diameter.

(3) The electric lamp provided as the illuminant for a portable projector shall be hermetically sealed in a glass bulb and shall not exceed 1,000 watts in powers.

(4) Every portable projector shall be provided with a filter or other device which shall be permanently attached thereto and shall be capable of intercepting the heat in the light rays emitted by the illuminant so as to prevent the ignition of a stationery inflammable film if the film is exposed to the rays for a period of three minutes.

7. *Illuminant for projectors.*—The illuminant provided for a projector shall be an electric lamp.

8. *"No smoking notices".*—(1) Legible notices prohibiting smoking within 3 feet of the projector or of the projector room or cabinet, as the case may be, shall be provided for display to the audience.

(2) Legible notices prohibiting smoking shall be provided for display in the projector room or cabinet, as the case may be, the re-winding room, if any, and the film storage room.

## FIFTH SCHEDULE

### AUTOMATIC SPRINKLER, FIRE ALARM AND FIRE DETECTION SYSTEM

1. *Type and charging of system.*—The automatic sprinkler and fire alarms and detection system shall be of the wet type with overhead sprinklers, and shall at all times be fully charged.

2. *Details of the system.*—The system shall comply with the following requirements

(a) *Pressure tank:*—

(i) A pressure tank of adequate strength and construction having regard to the charge of water specified in this sub-paragraph shall be provided and shall have a capacity of not less than twice the standing charge of fresh water required for the automatic operation of the system. A standing charge of not less than 500 gallons of fresh water shall be capable of being maintained in the pressure tank under an air pressure of not less than 70 lbs. per square inch plus the pressure due to a head of water measure from the bottom of the tank to the highest sprinkler in the system.

(ii) The pressure tank shall be fitted with an efficient relief valve and with a water gauge glass and a pressure gauge. Stop valves or cocks shall be provided at each of the gauge connections.

(b) *Air compressor.*—The pressure tank shall be connected to an air compressor capable of maintaining in the tank the pressure required by sub-paragraph (a) of this paragraph.

(c) *Pipes.*—(i) The pipes forming part of the system shall be made of steel of adequate strength having regard to the pressure to which they may be subjected, and shall be properly jointed and supported.

(ii) Connections shall be provided which will supply a replenishment of the standing fresh water charge in the pressure tank, and which will enable the pipes to be flushed with fresh water after the use of salt water in the system.

(iii) Any pipes which may be affected by frost shall be insulated so as to prevent the water therein from freezing.

(d) *External connections*.—The sprinkler system shall be a self-contained unit, and no external connections shall be fitted to it other than the following:

(i) Hose couplings with shut-off valves, and non-return valves situated close to the couplings, for the purpose of coupling to a shore supply.

(ii) A connection with the ships' fire main, provided with a shut-off screw-down non-return valve at the connection which will prevent a back flow from the sprinkler system to the fire main. Shut-off valves for the shore supply and the ship's fire main connection shall be clearly and permanently marked to show their purpose and shall be capable of being locked in the closed position.

(e) *Pump*.—(i) An independent power pump shall be provided solely for the purpose of continuing automatically the discharge of water from the sprinkler heads. The pump shall be brought into action automatically by the pressure drop in the system before the standing fresh water charge in the pressure tank is completely exhausted.

(ii) The pump shall have a suction direct from the sea which shall be independent of any other suction. The pump shall have fitted close to it on the delivery side a 2 inch diameter waste valve with a short open-ended discharge pipe for testing purposes.

(iii) The arrangements shall be such as will prevent the pump from passing sea water into the pressure tank.

(iv) The pump shall be capable of maintaining a pressure of 25 lbs. per square inch at the level of the highest sprinkler with the 2 inch diameter waste valve fully open.

(f) *Sprinkler heads*.—(i) Sprinkler heads shall be grouped into separate sections, each of which contains not more than 150 sprinkler heads. A section of sprinkler heads shall not serve more than two decks, and shall not be in more than one main vertical zone or in more than one watertight compartment. Provided that, in any ship, a section of sprinkler heads may serve more than two decks or be in more than one main vertical zone if the Central Government is satisfied that the protection of the ship against fire is thereby improved.

(ii) Each section of sprinkler heads shall be controlled by one control valve, and no other valves shall be provided for controlling any of the sprinklers in that section. The control valves shall be readily accessible, and their locations shall be clearly and permanently indicated. Means shall be provided to prevent the operation of the control valves by any person not authorised to do so by the Master of the ship.

(iii) A pressure gauge shall be provided at each control valve and at a central station to indicate the pressure of water available throughout the system.

(iv) The sprinkler heads shall be capable of operating with salt water and shall come into operation at a temperature of not less than 155°F. (68°C). They shall come into operation at a temperature of not more than 200°F. (93°C), except in drying rooms and similar spaces.

(v) Each sprinkler head shall be capable of discharging water at a rate of not less than 20 gallons of water per minute under a supply pressure of 25 lbs. per square inch.

(vi) At least six spare sprinkler heads shall be provided for each section. They shall be stowed in boxes or holders provided for that purpose near the control valve for the section, and the boxes or holders shall be clearly and permanently marked to show their contents.

(g) *Spacing of sprinkler heads*.—Sprinkler heads shall be spaced not more than 13 feet apart and not more than 6 feet 6 inches from a bulkhead. They shall be placed as clear as may be of beams or other objects likely to obstruct the projection of water and in such position that all combustible material in the space concerned will be well sprayed.

(h) *Automatic alarm*.—The sprinkler system shall include means for giving a visible and audible alarm signal automatically whenever any sprinkler comes into operation. The alarm signal shall indicate at one or more points in the ship, so as to come rapidly to the attention of the master and crew of the ship, the presence and position of any fire in the spaces served by the system. If such alarm is operated by electricity it shall be constructed so as to operate if any derangement occurs in the electrical circuit.

(i) *Power supply.*—There shall be provided not less than two sources of power to operate the independent pump, air compressor and automatic alarm.

(j) *Provisions for testing.*—(i) A test valve shall be provided for testing the automatic alarm for each section of sprinklers by a discharge of water equivalent to the operation of one sprinkler head. The test valve for each section shall be situated near the control valve for that section.

(ii) Means shall be provided for testing the automatic cutting in of the pump.

(iii) Switches shall be provided at one of the points referred to in subparagraph (h) of this paragraph which will enable the alarm and the indicators for each section of sprinklers to be tested.

#### SIXTH SCHEDULE

(See Rules 5 and 18)

1. (1) For steamships of which gross tonnage;

does not exceed 100 tons	190-0-0
exceeds 100 tons but does not exceed 300 tons	300-0-0
exceeds 300 tons but does not exceed 600 tons	360-0-0
exceeds 600 tons but does not exceed 900 tons	440-0-0
exceeds 900 tons but does not exceed 1200 tons	510-0-0
exceeds 1200 tons but does not exceed 1500 tons	590-0-0

and for every additional 300 tons or fraction of 300 tons  
in excess of 1,500 tons

.. 75-0-0

2. If the ship's hull, machinery, or equipments are stated in the Declaration of Survey to be sufficient only for a period of less than one year from the date thereof, one twelfth of the fee payable under paragraph (1) shall be payable for each month or fraction of a month comprised in the said period:

Provided that:

(a) the minimum fee shall be one-fourth of the annual fee;

(b) the full annual fee shall be payable, whatever be the nature of certificate—

(i) in the case of a steamship coming under survey for the first time, or

(ii) if, in accordance with the application for a survey, a steamship, has been fully surveyed, but the owner or master of the steamship is, for any reason, unwilling or unable to execute the repairs recommended by the Surveyor, or

(iii) if the survey is completed with the exception of minor details.

3. The fees specified in sub-paragraphs (1) and (2) shall be deemed to cover all the visits which a Surveyor may have to make before granting a Declaration of Survey.

#### Overtime fees

2. The charge of overtime fees in respect of surveys or inspections wholly or partially carried out between hours of 5 P.M. and 7 A.M. shall be regulated as follows:—

(a) where on the application of the owner or master of a steamship a Surveyor is called upon to undertake the survey or inspection of a vessel after 5 P.M. and before 7 A.M. an additional fee of Rs. 75 shall be charged.

(b) where a Surveyor is detained at the request of the owner or master of a steamship after 5 P.M. to complete the survey undertaken between the hours of 7 A.M. and 5 P.M. an additional fee of Rs. 40 shall be charged if the Surveyor is released from duty before 6 P.M. and Rs. 75 if he is detained later than 6 P.M.

(c) Where the owner or master of steamship has asked for survey between the hours of 7 A.M. and 5 P.M. but official arrangements have not allowed of the work being done between those hours, no additional fees shall be chargeable.

(d) Where a Surveyor has been called upon as specified upon in clause (a) or retained as specified in clause (b) of this paragraph, the owner or master of the steamship shall give information of the fact in writing to the Principal Officer, Mercantile Marine Department of the Port stating the hours during which the Surveyor was in attendance.

[No. 43-MA(2)/55.]

S. K. GHOSH, Dy. Secy.

